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ORIGINAL ARTICLES.

BRIGHT'S DISEASE IN CHILDREN.¹

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BRIGHT'S disease,² as you all well know, is a structural disease of the kidneys, either inflammatory or non-inflammatory in character, generally accompanied by dropsy, and the presence of albumin in the urine in greater or less amount. It was first accurately described pathologically by Dr. Richard Bright in 1827, and has received much careful investigation since then, but with the addition of few material facts. Several distinct forms of the disease are recognized, differing widely in many particulars, but in other respects retaining essentially the same clinical characteristics.

Great discrepancy is manifested in the use of the different generic terms employed to designate these various disorders of the kidneys. Formerly the terms albuminuria and Bright's disease were used synonymously, but it is now well known that albumin may appear in the urine from other causes than structural kidney-disease. Thus, for instance, we sometimes find albumin in the urine in typhoid fever, in diseases of the heart, or following the use of certain drugs, as salicylic acid, or the ingestion of an exclusive albuminous diet for some time. It is true that Bright's disease has albuminuria as an almost constant symptom, but unless there are structural changes in the kidneys no case of albuminuria can properly be called Bright's disease. Again, we find in the writings of some of our leading authorities the terms nephritis (without qualifying adjective) and Bright's disease used interchangeably. Da Costa has described a simple inflammation of the kidney, occurring mostly in old men, as the result of cold, which is ushered in by chills, high fever, and

great pain in the renal region, generally of one side. These symptoms are soon followed by vomiting, and at times diarrhea and retraction of the testicle, with or without hematuria or albuminuria, but unaccompanied by dropsy, and generally terminating in resolution in about two weeks, in other cases leading to suppuration. I cannot believe that such cases are very rare, as I have encountered at least two of the kind within twelve months, although they both occurred in young adults. It is manifestly improper to call these cases Bright's disease, as this would be extending the term beyond its proper limits and including pathologic conditions not embraced by the original description of Bright.

This disease, like many others, may be either acute or chronic, primary or secondary. In childhood by far the greater number of cases occur secondarily to scarlet fever; later in life the affection is generally primary. In the adult the acute form of the disease is seldom met with except when it occurs as a complication of and secondary to pregnancy, but in childhood the acute is many times more common than the chronic form. Holt maintains that Bright's disease is not rare in infants, and if physicians would make it a practice to examine the urine of their young patients more often many obscure symptoms occurring in the course of other diseases could be easily explained. Undoubtedly exposure to cold and wet is also sufficient in some cases to produce it. Goodhart, of London, suggests that exposure may play a more prominent rôle in the causation of the disease in childhood than is generally supposed. It is possible that many cases may occur from this cause which are never recognized as such, and recovery take place or a fatal termination follow which is assigned to other causes; and the kidneys never being suspected, the diagnosis is not corrected by the autopsy. In infants the primary symptoms point more particularly to the brain or the digestive system, thus making an error of diagnosis easy. Bright's disease is sometimes produced by the poisons of other diseases circulating in the blood, as that of measles, diphtheria, pyemia, or pneumonia; or it may arise from poisoning with phosphorus or arsenic, or from cantharides, or it may occur intercurrently with pulmonary tuberculosis or lardaceous disease. However, all these are much less potent factors in producing the disease in children than scarlet fever and exposure to cold or wet.

We are all more or less familiar with the various

¹ A paper read before the semi-annual meeting of the Cattaraugus County Medical Society, November 14, 1893.

² I consider the term "Bright's disease" very unfortunate, as it expresses nothing in regard to the nature of the disease, yet I have chosen to retain it in lieu of any other, as it is the only term which usage has applied to the pathologic conditions covered by this paper. We need a new term, yet it would be difficult to frame one exactly synonymous with "Bright's disease," as this embraces so many essentially different forms of nephritis (but not all of them, as I have shown in the text of this article), and is attended by such a variety of symptoms, none of which is constant.

signs indicating Bright's disease in the adult, but in infants the disease is often attended by symptoms which are very irregular and misleading. Thus, in some cases, dropsy is not a prominent feature at any time during the disease, and generally it is absent entirely during the first few days. Nervous symptoms are frequently conspicuous, and often the first indication the mother has that her babe is sick is a convulsion. By careful inquiry we are sometimes able to ascertain that this was preceded by restlessness and irritability, by slight pyrexia and scanty secretion of urine. In other cases gastro-intestinal irritation, as manifested by obstinate vomiting and diarrhea, is the principal feature and serves to divert attention from the real seat of the malady. Again, a high fever, with rapid pulse, may usher in the disease, or rapid respiration with dyspnea, independently of pyrexia, may cause us to suspect the lungs; these, however, upon careful examination are found to be sound. I allude to these irregular initiatory symptoms for the purpose of calling attention to the importance of a careful examination of the kidneys in all cases of convulsions, persistent gastro-intestinal disturbance, or unusual prostration without obvious cause.

In older children the symptoms of the disease approach more nearly those of Bright's disease in the adult. Following some exposure to cold or an attack of scarlet fever the child becomes ill and may have a moderate elevation of temperature. This is usually not sufficient to excite notice, but sometimes it is accompanied by headache and vomiting and the child is taken from school. Convulsions may occur at this time, but they are much more rare as initiatory symptoms in children than they are in infants; later in the disease, especially if proper treatment has not been followed, convulsions are frequent. The amount of urine passed is diminished in nearly every case, although the decrease may be so small as to escape notice unless the total amount for twenty-four hours is collected and measured; in other cases the urine is nearly or entirely suppressed. An examination of the urine shows it to contain albumin, generally in great quantity, and the microscope reveals the presence of blood-discs. In color and specific gravity it varies greatly according to the quantity of urine passed and the amount of blood which it contains. Casts are also present, frequently in great number, mostly of the epithelial or granular variety. Dropsy generally develops early and increases in amount. It is first noticed about the face, after which the body and extremities become edematous, sometimes to such an extent as to make the wearing of the ordinary clothing impossible, while the face is enlarged and changed beyond recognition. With these symptoms we find pallor and dryness of the skin, an accelerated pulse,

which is frequently intermittent, and the heart-sounds muffled and indistinct. Some authors believe that dilatation of the left ventricle is common, which, however, in some cases is only temporary, while in other cases it may be permanent or become the direct cause of death. Great restlessness, disturbed sleep, and even delirium occasionally occur in the Bright's disease of childhood, as likewise of infancy, and may contribute to a fatal issue by inducing exhaustion. All these symptoms vary greatly in severity in different cases, and their association in different degrees is susceptible of an almost infinite number of combinations.

Before proceeding to a consideration of the treatment of the disease as it occurs in childhood, let us review the clinical features by the narration of a case:

A boy, nine years old, strong and healthy, had never had scarlet fever or any severe disease. One day, while running and jumping, he became tired and sweaty and sat down to rest in the open air. During the next day or two he complained of feeling tired and lame in all his muscles, but especially those of his back and sides, and his parents thought he had strained himself by jumping. This soon passed away, but was followed a week later by dropsy of the face and hands, vomiting, and headache, both occipital and frontal. His parents then consulted a physician, who prescribed for him, but the dropsy continued to increase, and by the end of another week had involved the whole body, face, and limbs, and he took to his bed. Up to this time he passed a moderate amount of urine of a very high reddish-brown color. His bowels were somewhat constipated. He had a dull, heavy pain in the lumbar region and also through his bowels, but the headache was less. Soon after taking to his bed he began having convulsions, and had twenty-nine in about ten hours, the majority of only moderate severity. He became semi-conscious only between the convulsions, and tossed and moaned a great deal. I saw him for the first time on the day of these convulsions. As he had then passed no urine for twenty-four hours, I introduced a catheter and drew off about two ounces of very dark urine, which, upon boiling, threw down a deposit of two-thirds its bulk. I advised a hot pack to induce perspiration, to be followed by flaxseed-poultices over the kidneys. I also advised a cathartic and an opiate. The boy had but one more fit after this and soon sank into a quiet sleep, from which he awoke four hours later perfectly conscious. About a week afterward he began again to have convulsions, and I was called and given charge of the case. I found him nearly the same in all particulars as when I saw him before; his fits, however, were not so severe, and there was a longer interval between them. The urine was somewhat increased in quantity, but continued high-colored, almost brown, and contained much albumin. He complained of being sore and lame in one shoulder and side and through his bowels. I instituted the same treatment as before, and directed him to drink freely

of water and to have an exclusive milk-diet. Under this treatment he improved somewhat, the urine increased in quantity, became of better color, and contained less albumin; the dropsy also diminished. Finally, a diarrhea set in, which was accompanied by severe griping whenever his bowels moved, and morphin was required to give him any rest. Notwithstanding our efforts to check this diarrhea it persisted until his death, about a week later and about six weeks from the onset of the disease. His mind was perfectly clear to the last and his dropsy much diminished. His urine, however, while it varied within narrow bounds from day to day, continued albuminous and of a deep-red color from admixture of blood.

There is probably no disease that requires more care and judgment in its treatment than acute Bright's disease. Being universally recognized as a very serious affection, the tendency is toward active treatment by drugs, and this often means increased mischief to the kidneys. At least three important fundamental principles underlie the successful treatment of this disease: 1, to remove the transuded fluid from the tissues and cavities of the body, together with those products of destructive metamorphosis which are usually excreted by the kidneys, but which, owing to their diseased condition, are retained in the system; 2, to restore the functions of the kidneys to their normal condition; and, 3, to do no further injury to the already damaged organs. Many of us have undoubtedly striven assiduously in many cases to carry out the first two indications, but have neglected to heed the third. And what has been the result?

Ordinarily Bright's disease is an inflammatory disorder. Indeed, it is a question if every case of Bright's is not inflammatory at some stage. A cardinal axiom of medicine, as of surgery, is that an inflamed organ requires rest and not stimulation. Hence, when the kidneys are inflamed, any treatment which stimulates their excretory function, or which increases their blood-supply, cannot fail of doing harm. During this stage I believe the best results will follow the stimulation of *other* organs to do the work normally required of the kidneys, so far as they are able, together with restriction of diet and the use of bland diluents. So long as the patient has fever, a rapid pulse, and pain through the loins and back, we may know that the kidneys are in a state of engorgement, if not actual inflammation, and we had better let them alone. The presence or absence of blood in the urine can be no trustworthy guide to our treatment. Dickinson in his valuable work on *Albuminuria*, in speaking of scarlatinal nephritis, says: "The worst cases are those in which no blood makes its way into the urine." But blood when present in quantity is an

additional indication of engorgement, and calls for delay in the use of active diuretics.

During the inflammatory or congestive stage the urine is scanty, and as a result dropsy develops, often with symptoms of systemic poisoning. Here, obviously, we should seek to remove the cause by inducing a vicarious discharge of water from the economy, which at the same time will carry away some of the retained poisons. There are two principal channels by which we can do this—by the skin and by the bowels. For purgatives we may employ croton-oil, elaterium, jalap, or Rochelle salts, according to the urgency of the case. To induce perspiration we can make use of pilocarpin, liquor ammonii acetatis, or pulvis Doveri. By far the best way, however, is by the use of the hot pack, or prolonged hot-water or vapor baths. A convenient way to give a vapor bath is to seat the patient, stripped of his clothing, on a stool, and envelop him to the chin in a heavy blanket, which shall reach to the floor on all sides. Under the blanket place a pail of water, and drop one or more hot bricks into it, as required to produce steam sufficient to fill the blanket. If the patient is unable to leave the bed, we can still make use of the vapor bath. Water can be boiled over an oil-stove or a large lamp placed on the floor beside the bed, and the steam conducted beneath the covers by means of a tube made by rolling up a piece of builders' paper.

In case eclampsia has developed, or seems imminent, we may have to resort to chloral hydrate, morphin, or chloroform. On theoretic grounds I would object to morphin, as tending to lock up the secretions, which we are seeking to increase. It is very important in these cases of uremia that the foregoing treatment be promptly instituted and thoroughly carried out, whatever other treatment may seem called for. Some cases may demand stimulants to tide over this crisis, despite the fact that alcohol is an irritant to the kidneys, but they should be used cautiously and withdrawn as soon as possible.

As soon as the stage of renal engorgement is passed diuretics are indicated. These, following Smith, we may divide into three classes: (1) those which act by direct stimulation of the secreting structure of the kidney; (2) those which increase the amount of water in the bloodvessels; and (3) those which increase the general vascular tension. The first class includes the salts of potassium, squills, spirit of niter, cubeb, etc., and can be, in my opinion, discarded with advantage in nearly every case of acute Bright's disease. In the chronic form of the disease they may be admissible and, possibly, in some cases of acute Bright's, after the stage of engorgement has subsided, when we may choose to assume the risk of inflicting further damage upon

the kidneys for the sake of obtaining prompt diuresis to help tide over some critical period.

The second class includes a single substance—water, either plain or alkaline. Drinking freely of water increases the bulk of the urine without causing any irritation of the kidneys, but, on the contrary, allays irritation by diluting the urine. This is accomplished, according to Professor A. H. Smith, by a "process of simple transudation without action of the epithelium, and the effect is soothing, as it washes away irritating material, which would otherwise linger in the half-occluded tubules." If the urine is highly acid, one of the natural alkaline waters may be used with advantage, or an alkali, preferably a carbonate, added to pure water. A patient with Bright's disease in any stage should always be urged to drink freely of water, and the more scanty the urine the more necessary does this become. This will never produce or prolong an inflammation of the kidneys, as the effect is like a soothing lotion to an inflamed surface.

Digitalis is the type of the third class of diuretics. Formerly this drug was used indiscriminately in all cases, but now it is being restricted somewhat in its use. During the stage of active inflammation we should not employ drugs of this class, which includes, beside digitalis, strophanthus and the salts of caffeine, as in this state of the kidneys the indication is to lessen vascular tension rather than to increase it. When, however, inflammation is absent, digitalis forms one of our most valuable and harmless means of increasing the urinary secretion. I have frequently used digitalis in combination with the citrate of caffeine in the different forms of kidney-disease, and have been pleased with the effects produced.

Diuretin is another drug recently brought into notice as a diuretic, but I have never made use of it, and therefore offer no opinion of its merits. It belongs in the first class of diuretics.

The treatment of the uremic symptoms is sufficiently well set forth in the foregoing paragraphs. The bromid of potassium or sodium, either with or without chloral hydrate, may have some controlling influence on the convulsions, but it does not appear to afford much relief in uremic headache. The same treatment by depletion which we employ for the relief of uremia is also the proper treatment for the dropsy of this as well as of other diseases. The ingestion of fluids should be restricted and the bowels, skin, and kidneys stimulated to increased activity. But we should always have regard for the crippled state of the kidneys and employ the stimulating diuretics only in the absence of engorgement. Paracentesis and acupuncture are seldom, if ever, called for and are always attended with danger.

The diet in Bright's disease should consist en-

tirely of milk if it can be taken in sufficient quantity to properly nourish the patient. If milk is not well borne it may be predigested. Sometimes butter-milk can be taken when sweet milk cannot. Koumyss and other foods made from milk can also be used, either alone or alternately with milk, to give variety to the diet. The white of an egg stirred in the milk makes an important addition, if the loss of albumin from the system is great, as indicated by its presence in great quantity in the urine. Milk contains alone sufficient albumin to replace any ordinary loss in this way, besides its other important constituents, all of which are easily digested and leave but little residue in the bowels. Milk is also diuretic by virtue of the water which it contains, and is, therefore, a great aid to our other treatment. When convalescence is fully established we may add other articles to the dietary, beginning with the various animal broths and increasing the amount and variety gradually. Above all we should use decision in treating these cases of Bright's disease, especially with regard to diet, and should not fail to impress the parents or friends of the necessity of a strict compliance to orders.

GASTRO-INTESTINAL HEMORRHAGE IN THE NEWBORN.

By W. B. KONKLE, M.S., M.D.,
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In a white female infant born at noon, March 8, 1893, gastro-intestinal hemorrhage manifested itself on the evening of the following day, first by hematemesis, and during the twenty-four hours thereafter by several copious evacuations of blood from the bowels, the depletion occasioning a condition of profound shock. The accident could be attributed neither to inherited diathesis nor to dyscrasia, to circumstance connected with birth, to unusual feature of body, nor to neglect or impropriety of care. The treatment consisted in the administration, by the mouth, of ergot and vegetable astringents, and in the general application externally of dry heat. The child recovered rapidly and completely, a year having since elapsed, during which no incompetency of the digestive system has been discernible, nor any other untoward symptom exhibited permitting of any association whatever with the grave mishap cited.

The utter absence of tangible cause in this case and in others of the same class renders their investigation and explanation in the domain of theory necessary and interesting. Eliminating then, from this discussion, those cases of *melana neonatorum* to which may be assigned immediate causes like hemophilia, syphilis, and gastric ulcer, to what adequate factor may we refer that list, proportionately numerous, as testified by the results of post-mortem examination, for the existence of which no

such palpable interpretation is available? The prevailing opinion among writers on the subject is that in these otherwise inexplicable instances the hemorrhage is due to congestion of the gastro-intestinal tract. Vogel, quoted by J. Lewis Smith in his exhaustive research of the subject (*American System of Obstetrics*), while clearly asserting the occurrence of increased arterial pressure in the mesenteric system, also points significantly to the closure of the umbilical vein as a possible cause of congestion. Loranchet, quoted from a French journal (*American Journal of the Medical Sciences*, January, 1894), considers a slow and progressive refrigeration of the body as the operative influence effecting a passive congestion. Indeed the dominant idea seems to be that the congestion, the presence of which is unanimously conceded, assumes preëminently the passive or venous form. That there obtains in these cases an overstrained condition of the capillary system of the surfaces involved will likely be acknowledged upon the most superficial reflection. But whether this strain be produced by an augmentation of the *vis a tergo* or by a suspension or reversal of the *vis a fronte*, whether due to an increase of active arterial tension or to the development of passive venous obstruction, constitutes another problem.

To my mind the congestion cannot be venous. To tie a vein is to empty it on the cardiac side of the ligature. The tying of the umbilical cord, instead of engorging the portal circulation should, on the contrary, unburden it commensurately with the amount of blood that formerly was thrown into its current through the umbilical vein. On the other hand, to tie an artery is to produce turgescence on the cardiac side of the ligature. Hence constriction of the umbilical cord tends immediately to increase the pressure on the abdominal arterial circulation.

But, this element alone considered, one should expect any resultant hemorrhage to occur very soon after the ligation of the cord; whereas, in fact, the bleeding nearly always appears several hours subsequently, in some cases after days. Thereby another causal factor is indicated. Where may it be found? I believe that the explanation of the accident under discussion is involved in the relation which the closure of the ductus arteriosus bears to the closure of the foramen ovale. Let the obliteration of these blood-channels proceed harmoniously, and the consequent forcing of an increased volume of blood through the lungs will compensate for the recoil upon the abdominal arterial system occasioned by the tying of the umbilical cord. Let the ductus arteriosus close more slowly proportionately than the foramen ovale, and the abdominal arteries, already subjected to heightened pressure, will be further distended at the expense of the pulmonary circulation. Should the obliteration of the lumen of the

ductus arteriosus progress with disproportionate rapidity, the arterial vessels of the abdomen would be relieved of strain, and a corresponding active congestion of the lungs occur. Obviously such congestion of the pulmonary structures either does not happen as often as the analogous abdominal congestion, or, if it does supervene with comparative frequency, it does not imply the same risk. But that arterial congestion of the lungs may so occur and with disastrous results, is indicated by a case recently reported to the Lycoming County Medical Society by Dr. J. P. Connelly, a careful and trustworthy observer, in which death within two hours after birth took place with profuse hemoptysis presenting all the characteristics of such hemorrhage.

CLINICAL LECTURE.

THE TREATMENT OF NEPHRITIS.¹

BY J. M. DA COSTA, M.D., LL.D.,
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GENTLEMEN: I shall show you a series of cases of nephritis this morning. They are peculiar in some respects, as they display phenomena which are not always present in this affection. They are also of interest, as you will presently see, from a therapeutic point of view.

RECURRENT ACUTE PARENCHYMATOUS NEPHRITIS, WITH A MUSICAL HEART-MURMUR.

CASE I.—This patient, W. H. J., a colored fish-dealer, thirty-three years of age, came into the hospital on the 15th of January, a very ill man. He told us on admission that he is of temperate habits. He had an attack of gonorrhea twelve years ago, but denies other venereal disease. He has never had articular rheumatism. He had not been feeling well this winter, and, being exposed, caught cold repeatedly. He says that in October last, thirteen months after he first noticed symptoms of failing health, he quit work. Dropsy in the legs and ankles developed on several occasions after exposure to cold and wet. The man then had no appetite; had lost flesh and strength; had palpitation of the heart; and with this he noticed that his urine had gradually become less in quantity and smoky in color. Finally, the urine decreased to such an alarming degree that he decided to come into the hospital for treatment.

The last statement is confirmed by a study of the urine after admission, for during the first twenty-four hours he passed only five ounces of urine. The nature of this case is clear enough from the history. It is that of a man who, not being robust, has been much exposed to bad weather, and in whom unusual exposure was followed on several occasions by shortness of breath, palpitation, dropsy coming on gradually and slowly subsiding, to again return after exposure. But the point which does not show very clearly is rheumatism. Has there, or has there not, ever been in this case an attack of acute articular rheumatism? The man replies, "No."

¹ Remarks made in the course of a clinical lecture delivered January 27, 1894, at the Pennsylvania Hospital, Philadelphia.

You will see presently why I ask this question so pointedly.

On examining him we found this state of things: Upon admission he was very short of breath; there was dropsy of the legs, abdomen, and face—in fact, general dropsy, we might say; but his shortness of breath is what particularly attracted our attention. We found—and this is a point to which I shall return presently—a curious, musical murmur in his heart. His lungs were congested and full of fine râles. We also found albumin in the urine. In this scanty urine, of a specific gravity of only 1012, there was 8 per cent., by bulk, of albumin, and also hyaline and granular casts in abundance. In this connection it is important to note whether or not, at the time of his admission, he exhibited any cerebral symptoms. Did he have headache, or delirium, or any other symptom of nervous disorder? After coming into the ward he was subject to nervous spells at night, a curious delirium with confusion of ideas, during which he would sit up and scream violently, and sometimes fall backward in bed. In truth, he had attacks of temporary nocturnal delirium, although during the day his mind was clear. He had no delusion. This delirium occurred only immediately after admission, while the urine was extremely scanty; it was, in fact, a uremic delirium. There is no record of headache or convulsions. You have now heard the history of this case.

Now, gentlemen, the progress of this case well illustrates the effects of treatment, which I will briefly review, leaving some points for further discussion until I have given you the outlines of the case.

This man, with his nocturnal delirium, short breathing, rather irregular heart, feeble pulse, and annoying cough, was put upon tincture of digitalis, ten drops every three hours, and ten grains of ammonium carbonate every second hour. This was done on account of the very evident pulmonary congestion, indicated by râles in the chest and rapid breathing, and in order to stimulate expectoration. But while the action of the digitalis proved valuable to the general condition, the heart becoming steadier under its control, the total quantity of urine passed on the 16th was only five ounces. Realizing the necessity of stimulating the kidneys to action—for the digitalis while strengthening the heart had in this case very little action upon the kidneys—I gave what has become rather a favorite remedy of mine, the lactate of strontium, in thirty-grain doses in solution, four times a day, so that he received from a dram and a half to two drams daily. The result has been a striking one. From five ounces, noted on the 16th, we find the total urinary excretion rising in two days to thirty-five ounces. At the same time, the dropsical symptoms began to decrease, his breathing became less embarrassed, so that he could lie down, and, in truth, a general amelioration of the morbid phenomena took place, and particularly those connected with the dropsy. The man also slept better. He never complained of headache, and the nocturnal delirium did not recur during the course of this treatment. The lactate of strontium was continued in conjunction with digitalis until the 24th instant, when the latter was stopped, as the heart's action had become satisfactory.

Under this treatment the patient's uremic condition and his cough were much relieved, and he is now really

in a much improved state. How much of this to attribute to the digitalis, and how much to the strontium, may come to us from the fact that for the first forty-eight hours, while under the digitalis treatment exclusively, he did not greatly improve, and also from the subsequent observation that after the digitalis was stopped the urine did not decidedly diminish in quantity again. We have now got it up to forty-eight ounces in twenty-four hours, and I attribute this mainly to the lactate of strontium, in connection with a restricted milk-diet and rest in bed.

Let us now proceed to examine the present condition of the patient, partly with reference to the heart and partly with reference to the kidneys. The pulse is jerky, slightly tense, and receding. The cardiac impulse is diffuse, rather lacking in force, certainly lacking in force if we take into account its diffuse, extended character. Percussion over the cardiac region shows that the heart is increased in size, and particularly in its transverse diameter. We have, therefore, a case in which there exists enlargement of the heart, not so much due to hypertrophy as to increase in size of the cavities; there is a moderate hypertrophy, but a considerable amount of dilatation. When you have a want of correspondence between the size of the heart and its impulse, and a weakness of the pulse in proportion to the area of cardiac percussion-dulness, you probably have to deal with a stretching of the cavities rather than with an hypertrophy from actual increase of the muscular elements in the walls of the heart.

Now, with regard to the valvular apparatus of the heart. I wish that you could all listen with me, for this is a very peculiar heart. When I apply the stethoscope over the cardiac region I hear a strange, half-musical, half-purring murmur, which has its site of maximum intensity at mid-sternum. It is aortic in situation. This murmur is associated with a purring tremor conveyed to the hand placed lightly on the chest. It is the kind of sensation which the French have described as *frémissement cataire*. It is a curious purring; you can feel it as well as hear it. This murmur I do not hear clearly at the apex of the heart, but it grows distinct toward the base, and particularly the right base; the purring sensation conveyed to the hand corresponds in locality with the intensity of the murmur. This murmur is systolic in time, at the aortic cartilage, and is followed by a second murmur which is not of a purring character.

This is a case of aortic regurgitation, the first sound having associated with it a peculiar, musical, purring murmur. Now, as I go down toward the mitral valve, I hear this purring murmur gradually becoming less distinct, although it is evidently transmitted; but I also hear another murmur, of a softer character, which I think denotes the independent existence, or rather coexistence, of mitral disease. However, the preponderance of the murmur here is evidently aortic, and especially the half-musical sounds. Therefore, while we recognize the mitral lesion, the fact of the double murmur, heard at the base and at mid-sternum, indicates aortic disease, and especially aortic regurgitation.

Now, what is the explanation of this peculiar murmur here, and of its musical character? Gentlemen, the cause of this musical sound is that there is a narrowing of the aortic orifice, a stenosis, which at the same time, as I have already said, permits of some regurgitation.

The orifice is not only narrow, but is especially narrow at one portion, where there is a free edge of membrane vibrating in the blood-current, or a fragment of a valve flapping to and fro. Simple obstruction would never give you a murmur like this. A pure aortic obstruction would give you a systolic murmur, as we have a distinct systolic murmur here, but the musical murmur is due to irregular narrowing, with projection of some tense band or fragment into the current. This musical murmur I can also hear along the course of the aorta at the back. I may say that, in the majority of instances, these musical murmurs of the heart have their origin at the aortic orifice.

With regard to the lungs, I now report that the congestion has disappeared. Yesterday the man was sitting up and was not dropsical. To-day there is slight edema of the dorsal aspect of the feet, but it is very slight indeed. The abdominal dropsy has disappeared. The tongue is slightly coated. The abdominal organs present nothing special; the liver, which was large and swollen, is now reduced to its normal size. As regards the condition of the kidneys, the urine is here and it will now be tested. It is neutral in reaction, with a specific gravity of 1018; amber in color, clear, and contains no albumin or casts. This is the same result as the examination of the 25th inst.—two days ago. The temperature has been normal since admission, and, indeed, part of the time has been subnormal.

Now, what is the condition of this man's kidneys? He came in with scanty urine, which was very distinctly albuminous, and which contained casts—some granular and some hyaline. It did not contain blood. That he had some form of nephritis is evident; but what form was it? Now, gentlemen, look back upon the history which is given us from the time of its beginning. The symptoms came on after cold and exposure; the dropsy afterward decreased; then it returned after another exposure; the man again recovered, and was well until the final exposure brought on his present attack. There can be only one explanation. He has had a series of attacks of acute nephritis, but there has been little if any persistent structural disease of the kidney. Of course the inflammation may have been added to by the disease of the heart, which I am satisfied has always existed, or at least for many years. How did the disease of the heart itself begin? I am not sure of this. The history would suggest that it started just as the disease of the kidneys did—as an acute affection following exposure, or it might have been a latent endocarditis. Which it was I cannot say, but we have no evidence of any previous attack of rheumatism. Considering his mode of life this in itself is rather remarkable.

Coming to the question of treatment, what agent has been most useful in promoting recovery? The strontium undoubtedly had the most effect upon the kidneys. The digitalis had a decided effect upon the heart, but the strontium had an excellent diuretic effect. This man's diet was one of milk for the first six days; he was then allowed to have bread, eggs, and vegetables in addition. He shall continue this diet, but may have besides oysters and broths. The strontium shall be kept up for a few days. For his slight bronchial catarrh he may take wine of ipecac 5 minims, solution of ammonium acetate 3 drams, and of syrup of tolu enough to make a table-

spoonful, to be given every third hour. This is an expectorant which will promptly cause the catarrh to disappear. As regards his kidneys, they appear to have resumed their normal condition—at least there is at present no evidence of failure to perform their function properly.

ACUTE NEPHRITIS IN A CASE OF CIRRHOTIC KIDNEY.

CASE II.—Here is another case from the men's medical ward. It is in a car-conductor, thirty-nine years of age, who came into the hospital on the same day as the preceding case—January 15th. His history is as follows: He had influenza in 1889, and this was followed by renal disease and dropsy, for which he was treated in a hospital for a period of four months. Last spring, or about a year ago, he had an attack which appears, from his account, to have been rheumatic in character. On the 5th of July last he had a third attack of illness, which was accompanied by dropsy, and he was taken to the Orthopedic Hospital, where he was treated for renal disease. He was discharged and returned to work, but has not felt well. In December he had loss of appetite, nausea, pain in the back, a slight hacking cough, and dimness of vision. When he was admitted to this hospital there was no marked swelling of any part of his body, but there was some slight edema of the feet and legs.

On admission his urine was found to be acid, with a specific gravity of 1008, cloudy, of amber color, and contained 8 per cent. of albumin, by bulk, and a few granular casts were found. He was then passing thirty ounces of urine daily. He has been under treatment for twelve days. He has been taking the lactate of strontium only since the 18th, in the same dose as the preceding case, two drams daily, in plain solution. He passed, on the 16th, twenty ounces; on the 18th, twenty-four; and on the 19th, fifty-seven. Note this increase after taking the strontium only one day; the quantity is almost doubled. The strontium, therefore, had a very happy result here as in the previous case. He is now passing forty-one ounces; somewhat subnormal, but still a larger quantity than it was before. There is now no albumin; and no casts have been detected after repeated examinations. The specific gravity has risen from 1008 to 1018, even with the greatly increased excretion of urine. In testing for albumin my favorite method is to acidulate the urine with acetic acid, and then to boil thoroughly; but I always confirm this by other tests, either by overlaying nitric acid with a layer of urine, or by the use of metaphosphoric or of picric acid.

You will see presently why I am so particular about this. If this report is borne out by subsequent examinations, the man is now free from renal affection. Furthermore, he has no disease of the heart. The first sound is somewhat dull and indistinct, but I cannot say that I find a murmur. The second sound is well marked, but it lacks accentuation; it is not what would be called an accentuated second sound.

Now, gentlemen, what has happened to this man? At first, it appears a case exactly like the other one, with attacks of acute nephritis recurring at intervals. But whether it is in reality so or not I would hesitate to-day to give an opinion. This will require at least another week of observation. I hesitate to say whether it is simply a case of acute nephritis, or a case of

acute nephritis superadded to a chronic contracted kidney. I cannot decide this until I have had further opportunity for observation. The low specific gravity (1008) suggests the latter view, and we know that in contracted kidney there is frequently a temporary disappearance of the tube-casts and albumin. In such a case it is only after long observation and repeated examinations have proved the permanent absence of albumin and casts that we can say that the patient has recovered from his renal disease.

There is another thing that suggests this view of the chronic character of the disease. It is the persistent edema. It is true, there is no accentuation of the second sound of the heart, which usually accompanies contracted kidney, nor is there any increase in the size of the heart, which we see in chronic forms of nephritis; the tension of the pulse is, however, somewhat increased.

What shall we do for him at present? The dropsy has nearly gone, the albumin and casts have disappeared. I will give him Basham's mixture (solution of iron and ammonium acetate), half an ounce three times a day. This will act as a tonic and keep up the urinary secretion.

CIRRHOTIC KIDNEY.

I will now show you another case of chronic nephritis:

CASE III.—This man, John D., a hostler, is fifty-two years of age. He had typhoid fever in 1869. One year ago he had dropsy, with suppression of urine, with headache, and other uremic symptoms. He was under treatment in the German Hospital for five months last summer. He then returned to his work, and two months ago noticed that his legs were again swelling; his face also was swollen at times. He had indigestion, slight cough, was constipated, and had scanty urine, which was dark in color. It had a specific gravity of 1007 on admission; no tube-casts were found, but there was 46 per cent. of albumin by bulk. He had the characteristic pale, puffy face of a victim of nephritis. To be brief, I will say that he was put on the lactate of strontium, thirty grains four times a day. The amount of urine, which on admission was only forty ounces, was soon greatly increased; the albumin has decreased 40 per cent. He has been under treatment only for ten days.

There can be no doubt, from the history, the man's appearance, the low specific gravity of the urine, and the large amount of albumin, that he has a chronic form of renal disease, and not, as in the other cases, an acute attack. I also point out to you the fact that there is very little dropsy in this case, and what there has been has disappeared since he came under treatment. The man also had the strontium in the same dose as the other cases. He has cardiac palpitation, a certain amount of increased tension of the pulse, and a decided accentuation of the second sound of the heart, which, taken in conjunction with the other symptoms, leads me to conclude that we have here a case of contracted kidney. In this case there has been less improvement under the remedies employed than in the others.

I must confess, in the main, that what I have shown you to-day of the effects of the lactate of strontium in cases of nephritis only confirms my previous obser-

vations with this agent. The salts of strontium are valuable as diuretics in renal affections, and they are particularly valuable in the acute forms, but do less good in the chronic forms. They do not, according to my experience, act so much upon the structure or tissues of the kidneys as they do upon its secreting function. They are admirable diuretics. The claim that has been made by some French clinicians that strontium salts markedly reduce the amount of albumin in the urine has not been fully confirmed in my experience, except that the relative proportion of albumin is greatly reduced by the great increase in the quantity of the urine secreted. There is, however, some slight diminution in the amount of albumin, as well as increase in the quantity of the urine, especially in the acute forms. Whether in the parenchymatous and interstitial renal diseases these salts act beneficially upon the diseased or degenerated structures, or simply act as diuretics, has not been finally settled; but they certainly accomplish more good in the acute than in the chronic forms of nephritis.

To return to our patient, in treating this case we need pay less strict attention to restricting the diet than in the other cases. This man may have meat and vegetables, and a nourishing diet, avoiding indigestible and highly seasoned articles of food. For his treatment now he shall take bichlorid of mercury, grain $\frac{1}{10}$, in a wine-glassful of water three times a day, as a tonic to improve his tissues. This will be the treatment in this case, except that we will see with the aid of the lactate of strontium that the urinary secretion is kept free.

I have shown you this morning, gentlemen, cases illustrating different stages and forms of nephritis, which also show the effects of a valuable remedy in the treatment, especially of the acute forms of the malady.

CLINICAL MEMORANDA.

A CASE OF HERPES ZOSTER SHOWING ERYTHEMATOUS, PAPULAR, AND VESICULAR STAGES.¹

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It is in rare instances only that the physician has the opportunity of witnessing herpes zoster other than in the vesicular stage, and in still more rare instances that he has the opportunity of following the eruption through the stages seen in the report of the following case, which appeared at my clinic, and which showed an erythematous, a papular, and a vesicular stage.

On March 22, 1894, W. M., a female, sixty-six years of age, an Italian by birth, had been in this country for the past two years. She is a small, aged-looking person, and apparently not in the best of health. She received a fall about ten years ago, hurting the right knee, since which time she has been unable to flex the joint. She had six children, the youngest of whom is thirty-three years of age and the eldest in his forty-eighth year. She

¹ Read before the J. M. Da Costa Medical Society, April 6, 1894.

states that they are all in good health. The disease for which she applied for relief began one week before. The lesions were confined to the right arm and forearm and over the scapular region. About one week before her visit she had complained of shooting pains in the arm, which were followed by an erythematous eruption which occupied the same points as were then attacked. Upon examination I found that slightly above the right thenar eminence, at the bend of the elbow, and on the antero-external face of the upper third of the arm, the lesions seemed to be distinctly vesicular, with a decided inflammatory border far beyond the vesicular lesions. Slightly below the elbow-bend—for instance, two inches—and the same distance above this point, directly in the median line, there were patches decidedly erythematous, with one vesicle in the center of each. On the antero-external face of the upper third of the arm there was a patch, two inches in diameter, which was erythematous, pinkish-red in color, in which the lesions had not as yet shown any vesiculation, although on passing the finger across them there seemed to be elevations and depressions as though the lesions were still *sub cutis*. On the external surface of the scapular region just below the spine there was another patch about 1.5 inches in diameter, which was erythematous, although not as red as the foregoing lesions; there were no lesions apparent in this patch, although when passing the finger across it there seemed to be three or four points that resembled papular formations, which also appeared to be as yet beneath the cutis. On the inner face of the upper third of the arm, just below the axilla, and not affecting the axilla proper, there was a patch three inches in diameter, of a yellowish-pink color, the feeling being about the same as that upon the general surface of the unaffected skin. This patch was not raised above the surrounding skin, and was somewhat irregular in outline.

The patient complained of great pain over the affected region, and especially if she happened to lie upon the arm of that side. An interesting point is that while the eruption had lasted one week the severe pains had not been present until three days before, although she had had slight stinging sensations prior to the appearance of the eruption. All the lesions followed the outer branch of the brachial plexus from the shoulder to the wrist.

On March 23d the patch over the thenar eminence remained about the same, those near the bend of the elbow and those above and below this region also remaining the same. The patch on the upper inner third of the arm just below the axilla seemed to be approaching the color of the normal skin. The patch on the upper antero-external third of the arm was covered with decided vesicular lesions, apparently as yet raised but slightly above the surface of the skin. The patch near the shoulder and just below the spine of the scapula did not appear to have the peculiar halo of inflammation witnessed the day before, the lesions of this patch remaining papular. The inflammatory condition of all the lesions did not appear so distinct as then. The pain seemed to have more of an itching character than of a neuralgic nature.

On March 24th the patch below the axilla, and which was at the last note approaching the normal color of the skin, had now entirely disappeared. Those immediately above and below the bend of the elbow were very much

better. The lesions which were in the center of each of these had dried and become flattened, apparently without contents. The patch over the scapula had lost all of its heightened color, but the papules could still be felt on passing the finger over the region. The patch on the antero-external aspect of the upper third of the arm was covered with characteristic vesicles. The lesions in the other patches were more dry and seemed to be very much better. The pain was not present, and the patient slept during night, which she had not done for about one week.

On March 25th the pain was more severe than on the previous day. The lesions on the patch on the anterior lateral face of the upper third of the arm appeared to be fading; those at the bend of the elbow were still more dry; those on the scapular region were papules as yet, though tipped with vesicle-like formations. The patch on the upper outside of the arm was crusted. The lesions on the patch directly in front of the humerus were umbilicated and resembled very much the wheals of urticaria, although possibly not so reddish in color. The lesions elsewhere were also umbilicated and some were covered with a blood-crust at the summit.

The lesions near the thenar eminence contained a sero-purulent fluid, instead of serum, as usually found in lesions of this character. The halo of redness approached the normal color of the skin—that is, more of a yellowish-white. The pain followed the course of the ulnar nerve. The lesions were as yet distinct in places, and in others appeared to have coalesced, looking as if they had run together.

On March 28th the pain had entirely stopped and the patient was perfectly comfortable, and could sleep at night without danger of rolling on the affected parts. The lesions have almost dried up in their entire extent; those at the bend of the elbow were the only prominent ones; those on the anterior outer lateral face of the upper third of the arm looking more like enlarged papillæ (the so-called lichen pilaris) than anything else. The lesions of the thumb have entirely disappeared and the other lesions have likewise become indistinct. On March 31st the patient appeared at my office, at my request, and it was found that the lesions had entirely disappeared.

We thus have a condition of the skin prior to the formation of either papules or vesicles. This condition, properly an erythematous or macular stage, was shown in all the conditions prior to the visit of the patient, and, at her visit, in that portion of the arm on the inner surface just immediately below the axilla. Upon examination, this patch was found to be about three inches in diameter and not raised above the surrounding healthy skin; the edges, while showing a distinct line of demarcation, were irregular in outline. To the touch, the parts felt exactly like that of the normal and unaffected skin; the color was not of that pinkish-red observed in the other lesions, but was more of a yellowish-pink.

Following the writers of to-day, I am unable to find but one reference to a condition of this kind as having existed with or being noticed prior to the formation of papules or vesicles; this is by Dr. James Nevins Hyde, quoting Fabre (*Text-book*, 3d ed., 1893, p. 246) in the following words: "The essential lesion, always present even when the vesicles are not seen, is the first macular

efflorescence of the disease. This appears in the form of vivid and brilliant-red erythematous macules, groups of which, from six to ten in number, appear in the tract supplied by the affected nerve. The vesicles (which are generally regarded as more characteristic of the disease) appear afterward in from a few hours to a day or more, spring from the macules, and are accompanied with a sensation of heat."

Previous to the foregoing, I find that the works of Anthony Todd Thomson (*Text-book on Diseases of the Skin*, 1850, p. 250) contain the following, which I here quote in the author's own words: "Heat, tingling, or acute pain, which continues for hours, days, and occasionally weeks, when it suddenly vanishes with the appearance of several red, irregular-shaped patches, at a small distance from one another, scarcely elevated above the skin, and upon which are rapidly developed numerous minute transparent vesicles, the greater number clustered together, but a few distinct."

Taking the words of these two writers, therefore, we do not find that the conditions present in the case I report are thoroughly brought out by them, and that the following description of the disease would perhaps come nearer stating the appearance of the disease throughout its entire course:

Herpes zoster appears at first as an erythematous redness, scattered in macules of irregular size over the course of the affected nerve; this remains for an indefinite time, when it is followed by the formation of papules upon these erythematous bases, which in turn, quickly or slowly, completely change into vesicles; the condition may or may not be preceded by any sensation of pain.

In further search through the literature of the subject I find that in my case there is a difference from the statements of Hebra (*Text-book: New Sydenham Society*, vol. i, p. 374, div. 1), who says: "I may also remark in this place that the first-formed clusters of vesicles are always nearest the nerve-centers, and that those which subsequently develop lie more toward the remote peripheral distribution of the corresponding nerves." The same writer also, in speaking of herpes zoster brachialis, states that the vesicles first appear opposite the fifth, sixth, or seventh cervical vertebra, and then so on down the arm. In my case the first-formed vesicles were remote from the center of the affected nerves—that is, the vesicles first formed were at or near the elbow, and the later lesions were in or about the locality mentioned by the preceding writer, namely, the fifth, sixth, or seventh vertebrae.

One other question arises in the study of this case, put by Thomson (*Text-book on Diseases of the Skin*, 1850, p. 251) in the following words: "Is it inflammatory or nervous?" In answer to this, he states that Rayer (*Text-book*, 1845), from having observed that it follows the direction of the intercostal nerves, regards it as nervous, and that he accords in the same opinion. Of late years it has been customary with writers to give this credit to Bärensprung, but it appears that this writer, while he did more to connect this disease with the nervous system, did not complete his observations until 1861, sixteen years after the time of Rayer.

Another interesting point in the case here reported is that the disease did not at every point go on to the forma-

tion of vesicles, but that at some places it seemed to abort at the erythematous stage and others in the papular stage, while still others went on to the vesicular stage. Of the many writers on the subject of herpes zoster, only two, namely, McCall Anderson and Allen Jameison (*Text-book*, 1892, p. 146) speak of the condition aborting in the papular stage, and not any that I am able to find speak of the condition aborting in the erythematous stage.

SPONTANEOUS RECOVERY FROM CONGENITAL CLUB-FOOT.

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So rarely does spontaneous recovery occur from congenital talipes equino-varus that the history of the following case, related to me by Dr. J. Wellington Byers, of Charlotte, N. C., is worthy of recording.

The case was one of severe double talipes equino-varus. From an examination of the case, April, 1892, the following history was elicited:

"The patient is a male negro, thirty-six years old, with congenital double complete talipes equino-varus. At birth, the toes of both feet touched the heels. The child walked first at five years, and wore its first pair of shoes—heavy, thick ones—at thirteen years of age. He walked on the sides of his feet, the toes being still in the same position as at birth. Up to the age of twenty years he continued to stand and walk on the sides of his feet, lifting one foot over the opposite. At the age of twenty-six years spontaneous improvement was noticed in the right foot, which has gradually progressed until now, when the entire foot and leg are normal in size, shape, position, and function. The left foot is still slightly turned in—pigeon-toed—though the man stands flat on the foot, the only abnormal features being a small leg and slight contracture of the extensor tendons on the dorsum. Improvement is yet constantly going on, and a complete cure appears to be only a question of time."

After a careful and painstaking research, extending over a period of two years, but one similar case of spontaneous recovery has been discovered, and that is the unilateral case referred to by Baron Dupuytren, in his "Lectures upon Clinical Surgery."¹

"This deformity," he says, "is sometimes cured without the assistance of art. A case is related by Dr. Holtz, of a boy, born of indigent parents, with a very well-marked inversion of the foot. Without any attempt at treatment he was perfectly free from the deformity at twelve years of age. He endeavored himself to turn his foot outward, and as he was obliged to work hard and carry heavy burdens, he was forced to lean heavily on the ground. Exercise restored the equilibrium of muscular action, and now, at the age of twenty years, he would not be supposed to have ever suffered from club-foot."

It is the rule, almost without exception, for cases of congenital club-foot (talipes equino-varus) to grow progressively worse without treatment, and every surgeon knows how prone cases of club-foot are to relapse unless

¹ "Lectures upon Clinical Surgery," Register and Library of Med. and Chir. Sci., p. 201. Washington, 1835.

carefully treated subsequently to operation. So well recognized is this fact that the rule is now established to always slightly over-correct the deformity in manual, mechanical, or operative methods, so as to allow for this tendency to return to the deformed position after the curative means have been removed. The most important factor in preventing relapse is walking with the sole of the foot firmly planted upon the ground, and it is interesting to observe that in both of these instances recovery did not commence until the patients walked.

In the first case the occupation and efforts of the patient were favorable toward recovery, but in the second case the recovery appears to have occurred spontaneously. Moreover, the former case was unilateral, so that the patient was at a great advantage in setting the foot flatly and applying his body-weight and the weight of heavy burdens upon it. With this advantage it will be observed that the first case "was perfectly free from the deformity at twelve years of age," whereas, at twenty years the second case walked with one foot over the other, and recovery did not begin until twenty-six years of age. It is possible that in this case there was an inherited (racial) tendency to relaxation of the plantar fascias, plantar muscles, and the peroneal muscles; and what, had his feet been normal at birth, would have resulted in a condition of acquired valgus, in the event of the occurrence of double congenital equino-varus, resulted in restoring the feet to their normal relations.

Both cases illustrate forcibly how slow to overcome deformity Nature is, in that as many years were required to accomplish what the surgeon could have accomplished in so many minutes by operative means, or in as many months by mechanical means.

It also illustrates that treatment should begin very early, as Dupuytren pointed out before, referring to this case. It is my belief that treatment should commence at birth, and be continued until a perfect cure has been accomplished.

A CASE OF CHOREA DURING PREGNANCY.

By THEO. G. DAVIS, M.D.,
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As so few cases of chorea are met during pregnancy, especially of the grave character called by Osler *chorea insaniens*, I am led to report the case of C. B., twenty years and ten months of age, physically healthy, mentally deficient, but not an imbecile or idiot.

There is an uncertain history of slight chorea during infancy, but none since. The woman has menstruated regularly since fourteen; she was married four months ago, and menstruated once since.

I was consulted at about the third month because of constipation, nausea, vomiting, sleeplessness, and nervousness. I found the patient irritable and surly in disposition, with choreic movements of the body, arms, and head; the urine scanty, very albuminous, and containing phosphates and urates in great excess. There was a slight rise in temperature, and slight edema of the feet and eyelids.

Proper diet, purgatives, and rest in bed were prescribed, but the chorea became rapidly worse. She could not stand or sit, nor could she feed herself or drink; when drink was offered the cup was seized by

the teeth and the contents swallowed with difficulty. The head, face, eyes, lips, arms, hands, body, and legs were constantly in motion. She beat and pounded her body and abdomen, thrashed about on the bed, and excoriated and bruised her extremities. The urine was passed in bed from inability to sit on the vessel or commode, even with help, so violent were the movements.

Gelsemium in large doses did some good. Arsenic was not given on account of the renal complication. Cimicifuga, bromids and chloral were used without effect, and hyoscin proved useless. Morphin in quarter-grain doses hypodermatically would cause sleep for a time, with cessation of the movements, but they were renewed on awakening. The woman would try to answer questions, but was unable to control the vocal apparatus except to blurt out monosyllables. The heart was regular during sleep, but rapid and choreic during waking, and the pulse rose to 120, the temperature to 102°.

Medication being without effect and the patient growing rapidly worse, seeming like an insane person at times, abortion was advised, and after consultation, and with the assistance of Dr. Mailly, chloroform was administered, the os forcibly dilated, and the uterus emptied, proper asepsis being observed.

Ergot and morphin were given hypodermatically. The flow from the vagina was normal and without odor. The patient now rested more quietly, took nourishment, and seemed better; the choreic movements were much less, but during an attack of chorea the woman expired by syncope, twenty hours after the abortion. No post-mortem was allowed.

MEDICAL PROGRESS.

Rupture of the Uterus, with Recovery.—DOHRN (*Centralbl. f. Gynäkologie*, 1894, No. 11, p. 250) has reported the case of a multiparous woman, forty-one years old, in which in labor at term, the child occupying a transverse position, rupture of the uterus occurred in the course of attempts to bring about version, external pressure being conjoined with the internal manipulation. A dead child was finally extracted, and the woman, with the placenta unexpelled, sent quite a long distance in wintry weather to a hospital. Here the external genitalia were thoroughly disinfected with a 5 per cent. solution of carbolic acid, the vagina swabbed with mercuric chlorid, and finally well irrigated with a 4 per cent. solution of boric acid. Examination now disclosed the existence of a large tear involving the left side of the cervix and the vaginal vault, and in which lay loops of intestine and the placenta. The latter was removed without inducing noteworthy hemorrhage. The vagina was then packed with iodoform-gauze and an abdominal bandage firmly applied. The hemorrhage now ceased entirely and the patient revived under the use of stimulants. There was no evidence of internal hemorrhage and further interference was deemed uncalled for. Six days later the iodoform-gauze was cautiously removed; though saturated with lochial discharge it was free from odor. The anemic condition improved from day to day, and after temporary and moderate elevation of temperature and an attack of pneumonia, the woman was dismissed in good condition thirty-eight days after the un-

fortunate occurrence. A large cicatrix remained on the left side of the cervix and the vaginal vault, in consequence of the traction exerted by which the uterus was fixed and deviated to the right.

The Relation of Phlegmasia Alba Dolens in Typhoid Fever to Typhoid-bacilli.—HAUSHALTER (*Rev. Méd. de l'Est*, Sept. 1, 1893; *Rev. Int. de Bibliographie*, 1894, No. 2, p. 17) notes that the point of departure of venous thrombosis is to be found in an alteration of the lining membrane of the vessel, and that in some diseases this alteration may be due to microorganisms constituting a secondary infection. A case is reported that goes to show that phlegmasia may be due directly to the action of typhoid-bacilli. A girl, twenty-one years old, died in the sixth week of an attack of typhoid fever, and upon post-mortem examination a fibrinous clot was found in the left crural vein, extending from the apex of Scarpa's triangle to the iliac vein. Bacteriologic study of the walls of the vein and of the clot, as well as of the liver and spleen (which contained two small abscesses), disclosed the presence exclusively of typhoid-bacilli. The phlegmasia was thus the seat of an unusual localization of the bacilli, either from the formation of a bacillary embolus at the time of resolution of rose-spots or from infection of the walls of the vein by direct contact with an adjacent lymphatic gland, itself contaminated by the backward stream from the lymphatic glands of the abdomen.

Menstruation and Ovulation.—From a rather extended histologic study, LEOPOLD and MIRONOFF (*Archiv für Gynäkologie*, B. xlv, H. 3, p. 506) conclude that menstruation, *i. e.*, the periodic discharge of blood from the uterine mucous membrane, is usually accompanied by ovulation, although the former not rarely occurs without the latter. The hemorrhage depends upon the presence of the ovaries and an adequate degree of development of the uterine mucosa, and not upon the maturation and rupture of ovisacs. Ovulation occurs as a rule at the same time as menstruation; the process requires an increased afflux of blood to the generative organs for several days, and results in the formation of a typical corpus luteum. Ovulation may also occur independently of menstruation, though under physiologic conditions but rarely. At times ovulation, with the formation of a typical corpus luteum, is replaced by an afflux of blood to an ovisac that has not matured and does not undergo rupture, resulting in the formation of an atypical corpus luteum. Normal ovisacs may be present at a time when the ovaries are undergoing senile contraction, and they may undergo physiologic rupture and form typical corpora lutea.

Phenol-elimination in Disease.—As a result of a clinical and analytic investigation into the elimination of phenol in disease conducted at the clinic of v. Jaksch, at Prague, STRASSER (*Zeitschrift f. klin. Medizin*, Band xxiv, Hefte 5, 6, p. 543) has reached conclusions that agree essentially with those arrived at by previous investigators, the amounts found, however, being greater. Thus, an increase was found in the course of acute infectious disease (*e. g.*, in the first and second weeks of typhoid fever, pleuro-pneumonia, pneumonia in the stage of resolution); also in all cases of local suppuration or gangrene

(*e. g.*, pyo-pneumothorax, putrid bronchitis, gangrene, peritonitis); finally in diabetes mellitus. Normal amounts were found in cases of cystitis, leukemia, and typhoid fever eight days after defervescence; diminished amounts in cases of chronic anemia, of typhoid fever during the period of defervescence, of intestinal obstruction attended with persistent vomiting, of acute phosphorus-poisoning, and of hypertrophic cirrhosis of the liver. The elimination of indican, as well as the variations in the relation between the ether sulphuric acids and the preformed acids, showed no correspondence with the variation in the amounts of phenol.

Relapses in Typhoid Fever.—From a careful study of fifty consecutive cases of typhoid fever with relapse, obtained from the records of Guy's Hospital and from other data, STEWART (*Practitioner*, No. 309, p. 184) arrives at the conclusion that so-called relapses are genuine second attacks, presenting all the phenomena of the first attack and due to reinfection of the large intestine from the small. This reinfection is believed to generally take place at a definite period in the original attack and is probably effected by the passage of sloughs over healthy lymphoid follicles. Constipation was found to be an important predisposing cause of relapses. The opinion is expressed that the prognosis of relapses is good because a certain degree of immunity has been acquired by reason of the first primary attack, and fatal complications are less common.

THERAPEUTIC NOTES.

The Treatment of Carcinoma with Thallin Periodid.—MORTIMER GRANVILLE (*Lancet*, No. 3680, p. 639) maintains the utility of periodotetrahydroparamethyloxychinolin (thallin periodid) in the treatment of carcinoma. He has given the drug in doses of four grains, in pill-form, with a grain of musk, or one-twentieth of a grain of pilocarpin hydrochlorate, if the skin was dry and inactive, every second or third hour, and nothing else. One of the earlier signs of improvement noted has been a better color of the skin. In some instances there was darkening of the urine, but in none disturbance of the stomach or debility. It is theorized that the effect produced is a destruction of the locally proliferating and the wandering leukocytes.

For Pulmonary Tuberculosis.—

R.—Creosoti } aa 3ij.
 a-Naphthol }
 Acidi arseniosi gr. ij.
 Strychninae nitrat. gr. j.
 Atropinae sulphat. gr. ½.
 Extracti gentianae } aa q. s. ut ft. pil. no. cxx.—M.
 Gummi arabic.
 S.—One from four to six times daily. MAXIMOWICZ.

For Acute Bronchitis in Children, DE HOLSTEN (*Sem. Med.*, No. 2; *Wiener medicin. Presse*, No. 9) recommends calomel rubbed up with sugar of milk, and given in doses of one-sixth grain every two or three hours for four or eight doses. As the bowels are evacuated the temperature declines and the other symptoms subside.

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SATURDAY, APRIL 21, 1894.

HYPNOTISM AND SUGGESTION IN PRACTICE.

WHETHER hypnotism be itself a hysteric manifestation and adapted only to a restricted class of cases, as taught by CHARCOT and his followers, or a psychic condition physiologic in character, and therefore capable of therapeutic application in many diverse conditions, as believed by BERNHEIM and the Nancy school, it remains a fact that the instances of its successful clinical use are rapidly increasing in current medical literature. Nearly a generation ago, ESDAILE in India employed hypnotism as an anesthetic agent, and reported some twelve hundred surgical operations performed with its aid. It is probable that the introduction of ether and chloroform diverted attention from this valuable resource by rendering it unnecessary under ordinary circumstances; but from time to time cases are reported which show that under unusual conditions or in exceptional cases it still remains a resource which is not to be despised.

It is probable that the method of producing temporary anesthesia by rapid respiration, as introduced by DR. BONWILL, may be explained, in great measure at least, by hypnotic suggestion. Even in the administration of ordinary anesthetics, operators occasionally see instances of rapid anesthesia which are clearly hypnotic in character. Some years ago,

a physician of Philadelphia, DR. BARR, described a method of administering ether in obstetric cases in which he succeeded in inducing a state of partial unconsciousness, during which he would describe an imaginary excursion or a drive in the Park, which the patient would afterward refer to with expressions of pleasure, and also with astonishment that she had felt none of the pangs of labor. This was undoubtedly a mixed anesthesia of ether and hypnotism, and is analogous to other instances reported from Europe, in which hypnotism alone was used in parturition with the same happy effects.

To the instances of use in surgery and obstetrics must be added numerous medical cases in which equally good results have been obtained.

A case in point is furnished by an article in the *Australasian Medical Gazette*,¹ furnished by DR. CREED, in which the symptoms of asthma were entirely relieved by hypnotic suggestion. The patient, proving rebellious to ordinary treatment, all the ordinary remedies being tried without relief, was hypnotized daily for ten days and appropriate suggestions made. On the third day he was much relieved, and after the tenth, became entirely free from dyspnea, and he could then walk with considerable speed, without respiratory distress. It was found that he still had occasional modified attacks of asthma, and he was accordingly provided with a written order to sleep when he read it, and to wake up after five minutes, breathing freely. The report states that this was entirely successful; that the patient always carries his prescription with him, and that it never fails him. What makes the case of still greater interest is the supplementary statement that there are numerous polypi in both nostrils, which have not been removed for fear of making the cure by hypnotism questionable. Such an instance of therapeutic devotion and self-denial on the part of the attending physician is remarkable, and would hardly be matched in this country, where the polypi would undoubtedly have been removed early in the history of the case, and certainly before concluding that "all" the ordinary methods of treatment had been employed without affording relief.

Therapeutic suggestion has also been used in overcoming bad habits and vices, and some valuable results have been recorded. The noteworthy report of DR. BUSHNELL (*THE MEDICAL NEWS*, March 31,

¹ Abstracted in Boston Medical and Surgical Journal, April 5, 1894.

1894) is a valuable contribution to this aspect of the question. It is possible in the cases in which genuine and lasting reformation of inebriates has been obtained through the so-called "gold-cures," that suggestion has been called into play with good effect. It is indeed very probable that, among those persons who are addicted to alcohol, many of whom are degenerates and of highly neurotic character, hypnotic suggestion may have a very fruitful field to work in, especially as results have been reported of its successful application, in such cases, in which a distaste for liquor has been produced by this means, in subjects who had previously been confirmed drunkards. Sexual abnormalities, such as onanism, spermatorrhea, and impotence, have been successfully treated in this way, and erotic dreams have been banished. BRAMWELL has reported a case of anemic amenorrhea in a young woman, in which the menstrual function was restored upon the day appointed during a hypnotic séance. A very excellent review of the subject was made by DR. FREDERICK H. GERRISH, in an address read before the Maine Medical Association last year, in which his experience in nearly fifteen hundred instances of the remedial applications of hypnotic suggestion is detailed with much discretion and judgment.

Finally, the minor applications of suggestion are of daily utility in practice. DR. RUSH said that he had always stopped to explain to his patients the results which he expected to obtain from the medicines that he prescribed, and that he had found great benefit from this course. We know, at the present day, that expectant attention exerts powerful physiologic effects, and by adapting this in his therapeutics the careful physician is frequently able to score a decided advantage over the mere routine prescriber.

EDITORIAL COMMENTS.

To "*Elevate to a Pure and Ethical Plane*," etc.—We have before us a remarkable circular which well deserves the notice of the American medical profession. It is called a *Prospectus of the American Physicians' Sanitarium Association*, and sets forth a scheme that it says is *under the charge and indorsement of the regular profession, and on purely ethical lines*. It would, perhaps, more properly be termed "Keeleyism within the Profession," or, "The Commission-business in Medicine."

The circular is signed by nobody, and the composition of the company or association is in no way indicated. But the anonymous company assures us that it has acquired "by purchase of hitherto secret" (the *hitherto* italicized—the synchronous "wink" not shown!) "but thoroughly tested and proven remedies, etc." But this is

not enough! Each physician "in good standing" (why the restriction?) who shall send a patient is to receive a (\$100.00) share of the capital stock, etc. The object, to be sure, is "to reap the rich harvest of profit now almost wholly diverted to quackery," "to rescue from disrepute and consequent 'unfaith,' and to *elevate to a pure and ethical plane* the virtuous principles underlying the successful treatment of narcotic and alcoholic inebriety, etc." "Science," "scientific principles," "afflicted humanity," and the customary glittering generalities are, of course, liberally used.

We advise our readers to secure a copy of this delightful and richly humorous contribution to medical ethics, and to put it under their pillows to dream over. Perhaps the spirit of the Boss Tweeds of medicine may appear to them in their nightmare, asking, with characteristic leer, Well! what are you going to do about it?"

Catalogue of a Good Library.—Physicians are interested in popular libraries, not only as good citizens, but as special conservators of the mental and moral health of the community. A well-chosen collection of books, arranged in a well-ventilated and well-lighted room, and with proper facilities for general use, in and out of the library-hall, is a hygienic establishment of the first importance. We therefore commend to the earnest attention of our readers Document No. 200 of the U. S. Bureau of Education, issued from the Government Printing Office at Washington, 1893, copies of which may be obtained upon request, addressed to the HON. W. T. HARRIS, U. S. Commissioner of Education. This is a catalogue, or, as the learned Commissioner humanely spells it, this *catalog*, of 5000 volumes for a popular library, selected by a committee of the American Library Association, MARY A. CUTLER, chairman. The collection was shown as part of the U. S. Government Exhibit at the World's Columbian Exposition.

The catalogue is of great value, not only for the titles, but also as a model of clear arrangement; and the directions given for choosing, purchasing, arranging, and indexing books will be useful in private collections as well as in public ones. Naturally we should have desired a larger representation of good, popular health-books, such, for example, as B. W. RICHARDSON'S "Field of Disease," "Preventive Medicine," or "The Common Health," and the admirable series of "Health Primers," edited by W. W. KEEN. However, the few books chosen in this department are good, and the work as a whole, in idea and in execution, confers the greatest credit upon all concerned.

The Home Missionary Society.—Among the most worthy institutions of our city is the Home Missionary Society, the demands upon whose resources have been particularly heavy during the past winter and so continue with little-abated urgency. The society endeavors to afford relief to the unemployed, the poor, the sick, and special cases, and makes visits to children placed under its care. The society has under its guardianship 373 boys and girls, whose natural guardians either could not or would not provide for them. These children are placed with well-recommended families in country homes where they are educated and trained for lives of usefulness. The work of the society is strictly non-sectarian and is

sustained by voluntary contributions. Mr. William H. Lucas, 322 Race Street, is the treasurer, and will be more than glad to receive money, securities, or real estate.

Dr. N. S. Davis on the Code-Revision.—We commend to the thoughtful study of every member of the American Medical Association the letter of DR. N. S. DAVIS in the *Journal of the American Medical Association* for April 14th. The veteran leader, with his accustomed clearness, cogency, and consistent logic, reviews the report of the majority of the Committee on Revision of the Code of Ethics, and fully exposes its retrogressive tendencies. We are glad to be in line with DR. DAVIS on this question. Let the watchword of scientific and honorable physicians henceforth be: "Vote Down Revision!"

SOCIETY PROCEEDINGS.

THE ELEVENTH INTERNATIONAL MEDICAL CONGRESS.¹

Held at Rome, from March 29 to April 5, 1894.

THE Congress was opened in the presence of the King and Queen of Italy, the principal Ministers of State, the Ambassadors to Italy of the courts of Germany, France, Turkey, Holland, Sweden, and Greece; and of an immense number of members of the Congress, and of ladies and other guests. The ceremony took place in the Costanzi Theater, which was filled an hour before the time fixed for the commencement of the ceremony.

SIGNOR CRISPI saluted the members of the Congress in the name of Italy, and expressed the pleasure with which Italians saw such an assembly in their capital. "You labor," he said, "in two different directions for the benefit of humanity; in the one you teach us how to prevent evil, in the other how to remove it. Through hygiene, by purging the air and the earth of poisonous miasma, you preserve the health of mankind; through the use of remedies which cure and give hope, you remove diseases. Thanks to you, cities once unhealthy have become flourishing, and districts once deserted and insalubrious have been transformed into gardens. Rome, the mother of all, gave to the ancient world civilization and law. To-day, thanks in no small part to you, there will go forth from Rome a fertile promise of peace—peace which is the necessity and hope of the modern world, peace which will be made the more sure by this International Congress, which is a sign of the brotherhood and of the oneness of nations."

PROF. BACCELLI, President of the Congress and Minister of Public Instruction, then spoke in Latin. Among other things he said:

The great difficulties which necessarily attend the civil and political new-birth of a nation render the dearer to Italy the pledges of good-will and of honor which she has received since she has attained her unity and reconquered her rights. Last year to the festival at Genoa the peoples of nearly all the world sent their navies to render a well-merited honor to Christopher Columbus,

an Italian citizen. To-day they have sent to Rome men learned in the biologic sciences in order that the bonds which unite us may be drawn the more tightly in the interest of the public good. The learned who have come to Rome will remember that in ancient times the most distinguished public men cultivated *medicina politica* (hygiene), which the ancients esteemed highly, to which Cicero and Cato bear abundant witness. I greet you, then! You are welcomed with joy by this classic land, where the breath of liberty has survived the memory of the ancient greatness of its people. Here no one is a stranger; here, where every country finds some remembrances of its past, where all the human race forms one great family, may each one of you in thought and act seek the preservation of nations and the health of mankind. Then will the maxim of our ancestors shine through you with a new brilliancy: "*Salus populi suprema lex esto*," et "*nulla re magis homines ad Deos accedere quam salutem hominibus dando*." . . . I am proud to be able, in the name and by the wish of the King, to declare the Eleventh International Medical Congress open in Rome—*Undecimum omnium gentium de medicina conventum, hodie, Roma auspicatur*.

PRINCE RUSPOLI, syndic of Rome, then welcomed the Congress in the name of the city of Rome. In all ages, he said, physicians had been treated in Italy with universal respect. Augustus decreed that they should be Roman citizens, and at court, in the army, and in the communes a distinguished place was reserved for them. The earliest scientific congress met in Rome, and it was then that the conflict between science and prejudice began. In the time of Caesar a great scientific congress met in Rome to discuss a proposal for altering the course of the Tiber. The governing class then rejected all proposals with the famous epigram of Pisonius: "*Nil mutandum*." Since that epoch circumstances and habits of thought had changed, and Rome welcomed this Congress of scientific men with heartfelt gratitude.

PROF. VIRCHOW, speaking in Italian, referred first to the history of the struggles by which Italy had attained to unity. The last Congress, in choosing Rome as the place of meeting of the Eleventh, had desired to pay homage to the ancient traditions and the new glories of Rome. The members had come to Rome as friends and brothers; accustomed as they were always to subordinate their own personal convenience to the wants of others, physicians were the true messengers of peace and humanity.

PROF. MARAGLINO, the Secretary-General, then made a report on the organization of the Congress, and announced that the total number of papers announced was 2700, and that the number of foreign members was as follows: Germany, 900; England and British Colonies, 700; Austria-Hungary, 700; France nearly as many; 200 from Spain, Russia, Switzerland, and the United States of America, and some 500 others from Portugal, Sweden, and Norway, Holland, Belgium, Turkey, Roumania, Servia, Greece, Mexico, South America, Japan, and Borneo. Thirty-two governments and 425 scientific bodies were represented. There were also a large number of guests, including many ladies. He then called upon the representatives of the various countries, who each spoke a few words: For Austria, Professor Nothnagel; for Belgium, Professor Crocq;

¹ Prepared from advance sheets kindly furnished by the British Medical Journal.

for Egypt, Hassan Mahmoud Pasha; for Denmark, Dr. Salomonsen; for France, Professor Bouchard; for Germany, Dr. von Köhler, of the Army Medical Department; for England, Sir William MacCormac; for Norway, Professor Laache; for Holland, Professor Stokvis; for Ireland, Sir William Stokes; for Portugal, Professor Roche; for Roumania, Professor Severeano; for Russia, Dr. Sklifosovsky; for Spain, Dr. F. Caro; for Sweden, Professor Holmgren.

On the proposition of PROF. VIRCHOW, the President and members of the Provisional Committee were formally elected as president and officers of the Congress. The ceremony, which had lasted an hour and a half, then came to an end.

In the afternoon the Sections assembled in the rooms assigned to them at the Policlinic, and elected their officers.

On the second day, Prof. Rudolph Virchow, of Berlin, delivered an address on "Morgagni and Anatomic Thought." Prof. v. Babes, of Bucharest, delivered an address on "The Position of the State in Respect to Modern Bacteriologic Research."

On the third day Prof. Michael Foster, of Cambridge, Eng., delivered an address on "The Organization of Science." Prof. H. Nothnagel, of Vienna, delivered an address on "The Adaptation of the Organism to Pathologic Changes." Dr. S. Laache, of Christiania, Norway, delivered an address on "Idiopathic Hypertrophy of the Heart, and on Degeneration of the Heart-muscle."

On the sixth day Prof. Giulio Bizzozero, of Turin, delivered an address on "The Growth and Regeneration of the Organism."

On the seventh day Prof. A. Jacobi, of New York, delivered an address entitled "Non Nocere."

SECTION OF INTERNAL MEDICINE.

Prof. Baccelli was unanimously elected acting President, and Prof. Gerhardt, Prof. Bouchard, Prof. Ziemssen, Dr. Grainger Stewart, and Dr. Dreschfeld were amongst those appointed Honorary Presidents.

WARFRINGE read a paper upon "The Arsenical Treatment of Pernicious Anemia, Leukemia, and Pseudo-leukemia." In all of these diseases he had obtained excellent results.

A. MURRI read a paper upon "Cold as a Cause of Chlorosis," which he considered to be due to some disturbance of the vasomotor centers in the medulla and cord.

DR. BACCELLI announced the death of Prof. Bruglioli, of Bologna.

PROF. V. ZIEMSEN read a paper upon "The Intravenous Transfusion of Unde-fibrinated Blood." He stated that the operation was not an easy one, although in experienced hands there were no serious difficulties to be overcome, and the results obtained were excellent. In cases of chronic anemia he considered the repeated injection of small quantities of blood a most valuable mode of treatment.

G. DE LUCA read a paper, in which he stated that he had produced jaundice by the injection of toluol-diamin.

P. CASTELLINO advocated the treatment of anemia with corrosive sublimate.

L. CARRIERI described the supervention of purpura

hæmorrhagica in the course of a case of chronic articular rheumatism.

L. CANTU discussed gastric disturbances as a cause of chlorosis.

SECTION OF PATHOLOGY.

PROF. VIRCHOW presided.

PROF. BONOMO read a paper on "Glanders," in which he dealt with investigations on the biologic action of the products of the bacillus of glanders. These products varied in their action according to the animals used and the mode of cultivating the bacillus. Rabbits infected with the bacillus of glanders, even when the latter was attenuated, were extremely sensitive to mallein, even when the animals were to all appearances in good health. These poisons gave rise to nodules scattered throughout the organs, and the same results might be obtained in guinea-pigs. Twenty-four horses out of 32 suspected of infection with glanders reacted to mallein, and 17 were found to be infected whilst 6 were not, so that the reaction was not an absolute proof of the presence of glanders. Very small doses of mallein injected in a man suffering from glanders produced typical symptoms of reaction lasting from six to thirty hours, as well as great amelioration of the symptoms and even cicatrization of the nodules. In horses good results were obtained with a mallein prepared from the blood and organs of cats. A cure was effected in one horse which was suffering from typical glanders. The same result was obtained in dogs, whilst the control-animals not inoculated with mallein all died from glanders.

PROF. VIRCHOW spoke of the excellent results obtained in Germany by using a dried preparation of mallein for the diagnosis of glanders.

DR. JULIUS DONATTI and DR. GEZZA GARA read a paper on "Fever-producing Substances." The fever depends on the kind of microbes which are used, whilst some do not produce any fever at all. With anthrax-products the fever appeared in rabbits on the second day, and lasted four to five days. The same result was produced on sheep, whilst similar results were obtained in horses with the products secreted by the streptococcus. The fever-producing action of the chemic products of the bacillus pyocyaneus discovered by Charrin and Ruffer was confirmed. Extracts of the spleen of animals which had died from infectious disease—for example, swine-fever—proved extremely toxic, and their injection was followed by fever.

DR. SALOMONSEN (on behalf of Mr. FRISSEN) read a paper on "The Treatment of Smallpox in a Red Room." The author stated that suppuration was prevented by this treatment, and no scars were produced. He based his treatment on the fact that in 1830 Picton showed that darkness had a favorable effect on the course of smallpox, and also on the experiments of Charcot and Hamer, Unna, Malakoff, and others. Four physicians tried the treatment, and only one (Juhel Rénoy, of Paris) was dissatisfied. Four non-vaccinated children, at Bergen, by this method showed no fever and no suppuration. At Copenhagen, eleven patients were so treated, with similar results. Another physician obtained the same effects, whilst the vesicles which had not yet dried at once began to suppurate when exposed to normal light. The paper was illustrated by several extremely interesting photographs. Great care must be taken that

the treatment should be complete and continued right through the course of the disease.

BABES referred to certain diseases prevalent in Roumania, especially a disease which he calls enterohepatitis suppurativa, which is not dysenteric in character. It begins by the appearance in the lower part of the ascending colon of small pustules which rupture. There was well-marked edema of surrounding parts which might go on to the formation of retroperitoneal abscesses perforating the intestines, or gangrene of the bowel might follow. This enteritis was always accompanied by an abscess of the liver or necrosis of certain parts of this organ. Amebæ were found in the intestines, but had also been found in ordinary diarrhea, but he did not meet with them after death or in the abscesses of the liver during life or after death. As a rule, the abscesses were sterile, but in some cases various ill-defined microorganisms were present.

PROF. CORNIL called attention to Zancarol's work in Egypt, who did not find amebæ in all cases of abscesses of the liver. He considers that no organism has been proved to be the cause of dysentery.

DR. KAUFFMANN found amebæ in dysenteric diarrhea in a large number of cases of dysentery, especially when the stools contained blood. He considered that amebæ were the cause of dysenteric diarrhea, and he had also seen them in one case of abscess of the liver. He had noticed that abscesses of the liver might appear one year or more after the dysentery is cured, and an epidemic of dysentery was always followed by an epidemic of abscesses of the liver.

PROF. VIRCHOW said that he had himself showed amebæ in cases of dysentery, but that their etiologic action was uncertain.

A discussion on Carcinoma took place.

PROF. PIO FOA stated that the idea that carcinoma was an infectious disease was as old as medicine itself, but lately facts had been accumulating which placed this idea on a more secure basis. He referred to the observation that in many places carcinoma occurs with startling frequency, and that the mortality in such places sometimes amounted to 15 per cent. of that of the whole population, whilst in other places it fell as low as 7 per cent. Although the cases of actual contagion were few and far between, yet such cases undoubtedly existed. Carcinoma-grafting had also been successful, for, although it was impossible to graft the carcinoma of man on animals, yet the experiments of Hanau and others proved that carcinoma of animals could be successfully inoculated in another animal of the same species. He would now limit himself to the question of the existence of protozoa in carcinoma. This was, in his opinion, an extremely complicated question, as different observers had described as parasites things which had nothing in common with each other. He was of opinion that the parasites described by Darier, Wickham, Podwysoczki and Sawtchenko, Korotneff, and others were simply invaginated cells or products of degeneration. On the other hand, he was of opinion that the structures described by himself, Ruffer, Plimmer, Soudakewitsch, and others had the characteristics of parasites. These parasites all gave the same reactions, and consisted of a central corpuscle or nucleus which did not stain with basic anilin dyes, surrounded by a variable amount of

clear protoplasm, the whole being enclosed in a distinct capsule. He confirmed the observations of Ruffer and Plimmer as to the distribution of these parasites in carcinomatous tumors, and called attention to the fact already detailed by the same observers, namely, that the larger and more cystic forms occurred in the center of the carcinomatous tumor, and the smaller ones at the periphery. He had seen several such large parasites form together, and he thought that the multiplication of parasites might occur by the breaking up of the nucleus into small round bodies, though he did not consider this interpretation to be absolutely certain. He had seen the figures of division as described by Ruffer and Plimmer, but was not satisfied that their interpretation was the correct one. He concluded by saying that there undoubtedly existed in carcinoma certain well-defined bodies which were easily recognizable, which had characteristic staining reactions, and which could be easily distinguished from cellular invaginations and degenerations. The lecture was illustrated by some beautiful specimens stained with saffranin, hematoxylin, and orange.

PROF. TRASBOT spoke from the veterinary point of view. Carcinoma was fairly common in dogs and horses, but less frequent in cattle; the tumors previously described as carcinoma and sarcoma of cattle having lately been proved to be actinomycotic processes. In dogs carcinoma was common enough, but in a great many cases tubercle of dogs had been mistaken for carcinoma, and hence the so-called successful inoculations of carcinoma in dogs must be regarded with the greatest skepticism, unless controlled by accurate histologic examinations. Personally he had made numerous inoculations of canine carcinoma into other dogs, and had only once obtained a positive result. But in that case even the tumor grew for a few months only, and was then reabsorbed without any metastases forming in internal organs. He was of the opinion, therefore, that carcinoma could not be inoculated from one animal to the other.

PROF. V. CORNIL said that he had been working at this subject for some considerable time, but that he was unable to agree with the conclusions contained in Prof. Foà's and Dr. Ruffer's published papers. According to his observations, the nucleus of the carcinoma-cells consisted of two substances which had different chemic affinities: (1) The nuclein, which stained intensely with the ordinary nuclear dyes; and (2) the paranuclein, which stained with protoplasmic dyes. He described how in certain nuclei the hypertrophy of the nucleus was accompanied or preceded by a multiplication of the paranuclein bodies normally present in the nucleus. Parts of the nucleus were then cut off, and formed bodies which, in Dr. Cornil's opinion, were identical with the parasites described by Foà and Ruffer. Dr. Cornil showed a few sections to illustrate his opinion and a large number of beautifully-executed drawings. He did not deny that in all probability parasites were present in carcinoma, but thought that at present they had not been satisfactorily demonstrated. He pointed out that, clinically, there were a great many facts showing that carcinoma could be propagated from point to point by auto-inoculation, as, for instance, from one side of the labia majora to the other or from the lower lip to the upper. He also referred to cases in which, after an exploratory

puncture, carcinoma developed along the track of the needle. He thought there was evidence showing that in certain cases carcinoma could be communicated from one person to the other. He concluded by saying that at the present moment the discussion ought to be narrowed down to the explanation of certain well-defined structures found in carcinoma cells.

DR. CAZIN spoke of the inoculation-experiments which he had performed on dogs suffering from carcinoma. Inoculations into animals of the same species had hitherto proved unsuccessful, except in three cases of non-malignant tumors of the penis. In these three cases he had been able to reproduce the same tumor by grafting it into other animals; but all cases in which he had grafted epithelial tumors had uniformly proved unsuccessful. Graftings from the tumor of a dog to another part of the same animal's body had always been attended with success. He had also performed experiments on rats, which were not yet ready for publication.

PROF. SCHRÖN said that he could confirm the opinions expressed by Prof. Foà, Dr. Ruffer, and others as to the parasitic character of the bodies described in carcinoma, but he was of the opinion that besides these one could trace the evolution of these undoubted coccidia into an adult gregarine. He also thought that in some cases he had seen falciform bodies, and insisted on the necessity of examining fresh specimens.

MORPURGO and GALLIOTTI made references to the minute structure of the carcinomatous body.

DR. M. ARMAND RUFFER said that he regretted being opposed to MM. Cornil and Fraenkel, and many other eminent observers, but his researches in collaboration with Drs. Walker and Plimmer had led him to precisely the same conclusion as his friend M. Foà. In all the cases of carcinoma that he had examined he found the bodies which gave distinct staining reactions differing entirely from those of the nuclei of carcinomatous cells. He, with his collaborators, had frequently observed the appearances described by MM. Cornil and Fraenkel, and had even illustrated some of them in his published papers, but he maintained that these appearances differed essentially from the parasites described by Prof. Foà and himself. The reactions of the paranuclein of M. Cornil much resembled those of the nucleus of the carcinoma-parasite; but this parasite, like many protozoa studied by Dr. Ruffer, never contains real chromatin, and he believed that in the pathologic human cell there was no nucleus which did not contain chromatin. Some of the figures of MM. Cornil and Fraenkel resembled very closely those described by Martin Heidenhain in the epithelial cells of the triton helveticus. Dr. Ruffer had also studied phagocytosis in carcinoma, and it was indubitable that the leukocytes penetrated into the epithelial cells, and carried off the parasites which they found there. He had observed this occurrence a number of times in young metastases of the liver and of internal glandular organs. He had not studied the inoculation of carcinoma into animals, but believed that, in order to obtain positive results, it would be necessary to inoculate the metastases, and not the primary tumor; for the grafting of sarcoma only succeeded when one inoculated metastatic tumors. He quite agreed with MM. Duplay and Cazin that the coccidia of Wickham, Korotneff, Podwyssozki, and Sawtchenko, and other ob-

servers, were only invaginated and degenerated pathologic cells; he believed that to be admitted now by most observers. With regard to the multiplication of the parasites, Dr. Ruffer had nothing to add to the notes published a year ago by Dr. Plimmer and himself. He believed that little result would be obtained by the usual methods of fixing and coloring, and that recourse must now be had to a new method. He and Dr. Plimmer had for some months past studied fresh preparations mounted in carcinoma-juice; on taking care to lower the condenser and to use an oblique light the parasites could most clearly be seen in the cells, and even the nuclei were distinct. He had even observed movements, which he hoped to be able to photograph later on. If such a preparation be stained with Loeffler's blue, with the addition of a few drops of methylene-green, a very characteristic reaction was obtained; the carcinomatous cell took a dark-blue color, the nucleus of the parasite a pale-pink, with a clear part in the middle, and its protoplasm a light-blue. If one daily examined a carcinoma after removal one could follow all the stages of the degeneration of these parasites, and also certain phases of the life-history of these protozoa, on which Dr. Ruffer hoped to speak on a future occasion. Loeffler's blue was not the only reagent which gave differential staining, for very beautiful preparations had also been obtained with anilin stains, such as eosin, for example.

DR. HANAU said that with reference to the frequency of carcinoma in dogs and horses, as described by M. Trasbot, the reason for this was probably that horses and dogs were allowed to live to an advanced age, and only killed when age or infirmities rendered them useless; whereas cattle, sheep, and other animals were destroyed for food at an early age, and hence it was not likely that one could have many opportunities of seeing carcinoma in them. He would not give an opinion on the histologic appearances of carcinoma-parasites. He was of opinion, however, that his own successful experiments on rats had shown that it was possible to inoculate carcinoma from one animal to another of the same species; though he did not consider this as a proof of the infectiousness of carcinoma, but rather in the light of a successful transplantation of tissue. He thought there were a great many difficulties in the explaining of carcinoma by the assumption that it was an infectious disease, chiefly owing to the peculiar localization in certain parts of the body, and to the fact that the metastatic growths of carcinoma presented exactly the same structure as those of the parent tumors. He agreed with Dr. Ruffer in thinking that histology had done all it could be expected to do in this question, and that for future work we must trust rather to experimentation and to the observation of fresh specimens.

DR. CORNIL, in summing up, congratulated the Section on the interesting discussion to which the members had listened. He thought it was valuable not only for the facts which had been adduced for and against the parasitic origin of carcinoma, but also because this discussion would serve for future workers as a guide to the points which still remain to be investigated.

SECTION OF DISEASES OF CHILDREN.

The President of the Section, DR. BLASI, opened the proceedings by giving an address in which, after indicat-

ing the scope of the Section, he sketched the history of pediatrics in Italy. After mentioning some of the earliest observations on embryology, which dated back to the sixteenth century, he referred to the observations of B. da Carpi, who in the early part of the sixteenth century recognized the existence of hereditary syphilis, and of di Aquila of de Vizo, of Genoa, who had discovered the specific treatment; of Curzio, who had studied the phenomena of malaria in children; of Montany, of Venice, who in 1560 had described tetanus neonatorum; of Cortesi, of Bologna, who had first described hydrocephalus; of Carnevale di Rapoli (1620), who had written one of the earliest known descriptions of diphtheria; of Martino Chigi, of Bologna, who had written a stupendous monograph on croup. The list of Italian physicians who from early times had given attention to diseases of children, would, he said, occupy too much time, but he mentioned the names of Bagellardo, of Venice, who in 1481 published a work, *De Aegritudinibus Infantum*, now very rare; and of Mercuriale, who in somewhat more recent times had printed a work entitled *De Morbis Infantum*. Altogether Italy might well be proud of the contributions made to the study of disease in children, and to their relief through the establishment of hospitals, which had been established in most of the principal cities by public or private charity.

A discussion was held on "Diphtheria and Croup."

PROF. T. ESCHERICH observed that there were two factors to be considered in the pathogeny of diphtheria: the resistance of the tissues and the virulence of the bacillus; but that secondary infections by pyogenic organisms frequently determined the clinical character of any particular case. The successful treatment of diphtheria might be grounded on the destruction of the bacilli, on the reduction of their virulence, or on some method of rendering the individual immune.

PROF. BAGINSKY related the results of a systematic examination of the kidneys in cases of diphtheria complicated by albuminuria and nephritis. This research had shown that the morbid process in the kidneys was a glomerular nephritis attended with considerable desquamation of the epithelium and the appearance of cylindrical, epithelial, and hyaline casts in the urine.

PROF. HEUBNER gave some statistics of diphtheria during three periods, first without the use of anti-diphtherial serum, second with it, and a third period again without it. His general conclusion was that the serum had no influence on the course of the disease.

PROF. MYA read a paper on "The Occurrence of Mixed Infection in Diphtheria," which he had found to be an extremely frequent occurrence. His researches showed that the presence of streptococci did not exercise any apparent influence on the course of the general toxic symptoms, but they had an effect in increasing the rapidity of the process, and in determining the production of albuminuria. The diphtheric infection predisposed the tissues to become the seat of septic pneumonia.

DR. LUIGI CONSETTI said that for the production of true diphtheria the presence of the bacillus of Loeffler was necessary, though membranous affections due to streptococci might give rise to croup and general symptoms of a severe type. As to the relative frequency of diphtherial laryngitis and non-specific croup, he stated that in 22 children affected with primary croup he had

isolated the bacillus of Loeffler in 19. Antiseptic medication was most to be relied upon, especially a spray of corrosive sublimate, which might be used in solutions as weak as 1 in 10,000. Boric acid spray, 2 in 100, was also valuable; also nitrate of silver, 1 or 2 in 30, thymol 5 per cent., and many other antiseptics. A thorough douching of the mouth and fauces with an antiseptic solution was to be recommended when the case was first seen. Mercurial preparations were also of use for internal administration.

PROF. RANKE said that Behring's serum had been tested by himself and Prof. Oertel in the Children's Clinic at Munich in cases of diphtheria of the pharynx with laryngeal complications necessitating intubation. During recent years the average mortality of such cases had been 37 per cent. The strongest serum was used. The first case recovered, but in the six following cases pneumonia supervened, apparently of a special type and led to a fatal termination.

PROF. SOLTSMANN considered it important to recognize that though under the local treatment recommended by Escherich, the membrane might diminish in quantity, the temperature must be taken as the safest guide, and that the patient must not be considered to be convalescent until the temperature had become normal. He referred to the necessity for disinfection of the mouth, which should be continued after convalescence for at least a week before the patient was allowed to associate with others.

PROF. MALINOWSKI said that he had employed intratonsillar injections with excellent results. Recently he had used aqua chlori, and all the cases so treated had recovered; but when symptoms of croup were present injections did not give good results. Intercurrent pneumonia he looked upon as due to an infection taking place perhaps contemporaneously with the diphtherial infection.

PROF. HEUBNER had not observed pneumonia after injections with Behring's serum. He referred to the importance of mixed infection in determining the clinical character of an attack of diphtheria, and expressed the opinion that personal predisposition was an important factor.

PROF. ESCHERICH expressed the hope that the treatment by serum might yet be proved to give good results.

PROFS. MYA, BAGINSKY, REHN, FEDE, and CONSETTI also made some brief remarks.

DR. RAFFAELLE SARRA read a paper on "The Local Treatment of Diphtheria by Methyl-violet," which in his hands had not yielded satisfactory results, the rate of mortality being 66 per cent.

A paper on "Intubation and Tracheotomy" was read by DR. FRANCESCO EGIDI, who recommended intubation on the ground that it might be performed at an early date, and that it did not at all prevent, but rather facilitated, the subsequent performance of tracheotomy, should that become necessary.

PROF. PIETRO MASUCCI read a paper on "The Spread of Diphtheria through Schools, Day and Boarding." He thought that every boarding-school should be provided with an observation-ward as well as isolation-wards, and dwelt on the importance of isolating also the attendants on suspicious cases. He spoke in favor of compulsory notification.

Short papers on "The Treatment of Diphtheria" were read also by DR. SZILLAI and DR. GUELPA, and PROFS. COMBY and MASUCCI made some remarks upon them.

A discussion was held on "Rickets and its Relation to Spasmodic Affections."

DR. J. COMBY discussed the relation of rickets to convulsive attacks in children. He found that in every 100 rickety children about 10 had suffered or were still suffering from convulsions more or less serious, and either general or involving only the glottis. The occurrence of general convulsions or glottic spasm did not stand in any special relation to cranio-tabes or rickets. The digestive troubles which preceded and accompanied rickets were responsible for the convulsions which were due to the absorption of toxins from the alimentary canal.

PROF. A. GAMBA, in discussing the "Etiology and Pathology of Rickets," expressed the opinion that the disorder was a constitutional malady dependent on a vice of nutrition, associated especially with an imperfect assimilation of calcium phosphate. Treatment should be mainly hygienic.

DR. CHAUMIER made an elaborate communication founded upon a special mission which he had undertaken at the direction of the Minister of Public Instruction of France for the purpose of studying rickets in Italy. He had arrived at the opinion that rickets was a specific disease produced by a microbe as yet undiscovered. It was contagious, endemic in towns, and sometimes epidemic. It was met with as a spontaneous and epidemic disease among young swine, the osseous lesions being identical with those observed in children. The germs of the disease seemed to be able to exist in houses for a long time, and it was probable that cases of apparent heredity might thus be explained.

DR. NICOLÒ FEDE had been led to the conclusion that rickets was to be attributed to a disturbance of assimilation, traceable to the absorption of toxins produced by putrefactive changes in the intestinal canal.

PROF. ADOLPHE D'ESPIRE considered that the remarkable researches of Escherich on tetany in infants had proved the frequent existence of nervous hyperexcitability, in spasm of the glottis, and in many other conditions produced by digestive disorders in infants under one year. He, however, objected to the employment of the word "tetanie" as synonymous with reflex hyperexcitability.

PROF. FEDE was led by his experience to accept the views advanced by Prof. Comby.

DR. MENSI, from a study of the gastric contents in rickets, had found that the total acidity was excessive, that hydrochloric acid was deficient, and that abnormal acids, the product of fermentative processes, were present.

PROF. BORELLI considered that the conditions of intra-uterine life had an important share in the production of rickets, in predisposing the infant to develop the disorder after birth.

DR. G. B. VIALI, from observations made in Constantinople, had come to the conclusion that rickets was a predisposing, but not a determining cause of laryngismus stridulus.

DR. PAVONE thought that it was easy to exaggerate the importance of gastro-intestinal disturbances as causes

of rickets. Common as rickets was, such digestive disturbances were far more common.

Profs. Escherich, Baginsky, Rehn, Soltmann, and Ranke also took part in the discussion.

Subsequently papers were read by Prof. Rehn on "Congenital Myxedema;" and by Prof. Soltmann on "Cyclic Hemoglobinuria." Dr. Sophie Bakunin read an elaborate paper on the "Comparative Embryonic Anatomy of the Genito-urinary System in Man and other Animals;" and Dr. F. Cerna made a communication on the "Diagnostic Value of Indicanuria in Children."

DR. A. MOUSSOUS read a paper on the "Infantile Form of General Paralysis." The lesions, both naked-eye and microscopic, in a case recorded by him in 1891, were in every respect similar to those observed in the adult. Since that date he had observed a second case. The cases, taken together with observations made at Bicêtre, had convinced him that general paralysis would come on in childhood. Development went on normally until the age of two, three, four, five, or six years, but convulsions were often observed indicating an undue excitability of the nervous system. The onset of the disease was marked by symptoms of meningitis, of apoplectic symptoms, or severe convulsions. The manner of the patient was subsequently changed, and characteristic symptoms developed with greater or less rapidity—vertigo, tinnitus, epileptic fits, partial or complete, with or without paralysis. Next ensues, slowly or rapidly, the stage of dementia, which becomes absolute. Death ensued in from one to four years, determined sometimes by an attack of meningitis, sometimes by an epileptic attack, with hyperpyrexia, sometimes by marasmus.

SECTION OF DERMATOLOGY AND SYPHILOGRAPHY.

PROF. KAPOSI, of Vienna, presided.

DR. TOUTON made a communication on the gonococcus of the blennorrhagic process. He insisted that the gonococcus was the cause of blennorrhagia, and that the diagnosis of the disease can only be made sure by the microscope. The gonococci are usually most abundant at first, but if at later periods the microscopic examinations are negative, the microorganisms can be made evident by a provocative irritation. Sometimes cultures by Wertheim's method may be necessary for diagnosis. He maintained that the tissues beneath the epithelium are invaded, as well as the softer epithelial cells, but not the horny cells. The infection extends by the lymph-channels.

Other papers on genito-urinary subjects were read by the following members: DR. PADULA, on the "Infective Fever of the Blennorrhagic Virus"; DR. GRÖNFELD, on the "Present Position of Urethroscopy"; DR. ROCA, on "Lemon-juice in the Treatment of Blennorrhagia"; DR. BARRUCCO, on the "Local Treatment of Urethritis with a New Form of Syringe."

Messrs. Barduzzi, Mibelli, Bröse, Neisser, Jullien, Wahrschewski, v. Petersen, Mange, and Casper took part in the discussion.

DR. NEISSER doubted the invasion of connective tissue by the gonococci, except rarely. He considered that frequent examinations for the microorganisms were necessary, and if, after repeated trials, none was found, the case might be regarded as non-infective, and the

individual allowed to marry, even though abundant secretion be present. He did not think that the clinical conditions alone, the presence of flocci, etc., were of so much importance.

DR. SAVILL communicated his researches on a new form of "Epidemic Skin-disease," occurring in London, and exhibited a large series of photographs and drawings.

An important discussion on the present state of the lichen question was then opened by DR. NEISSER, who maintained that the term "lichen" should be confined alone to the disease known as "lichen ruber," which presents two principal forms: "lichen (ruber) planus" of Wilson, and "L. ruber acuminatus" (Hebra, Kaposi).

MR. MALCOLM MORRIS read a paper in which, after reviewing the literature that had appeared on the subject of lichen since the Dermatological Congress in Paris in 1889, he said lichen had no more right to be created into a group than pityriasis or purpura. After sorting out of the lichen group those elements that belonged to definite diseases, such as eczema, syphilis, etc., the only affection left was the lichen planus described by Erasmus Wilson. He summed up his conclusions as follows: 1. Lichen is not a disease, but a type of lesion. 2. The term should be reserved for the clinical entity described by Erasmus Wilson under the name of lichen planus, which is the same as Hebra's lichen ruber. 3. The affection described by Kaposi under the name of lichen ruber acuminatus is identical with that described by Devergie and Besnier as pityriasis rubra pilaris. 4. Other forms of lichen—obtusus, hypertrophicus, verrucosus, etc., are variants of the typical form, the Hebra-Wilson lichen ruber planus. 5. The group of symptoms to which the name of lichen planus is applied is probably caused by a variety of factors, but at present we are almost entirely in the dark as to its pathogenesis.

Drs. Majocchi, Ehrmann, Oro, Schwimmer, Schiff, Hallopeau, and Tomassoli joined in the discussion, Dr. Schiff maintaining that "L. ruber acuminatus" is identical with Devergie's "pityriasis rubra pilaris," and that the affection is quite distinct from L. ruber planus. The present confusion is caused by employing the term "lichen" for all these conditions.

Among the papers read was one by DR. ALFRED EDWARDS, on the "Treatment of Ringworm," giving statistics of a large number of cases treated by Una's method, and detailing the modifications he now employs. He strongly disapproved of epilation, and thought that, with proper care, children might be allowed to attend school while under treatment.

DR. ABRAHAM communicated a "New Method of Treating Obstinate Parasitic Diseases of the Scalp by the Application of Parasitocides under Pressure," and exhibited an apparatus which he had constructed for the purpose. During the past few months he had successfully employed the method in several cases which had long resisted other treatment.

SECTION OF LARYNGOLOGY.

The following were the officers elected: *President*—Prof. Massei. *Honorary Presidents*—Drs. Fraenkel, Schmidt, Chiari, Semon, Gougenheim, Moure, Ruault, Schmiegelow, Botey, Sajous, Lowman, Heryng, Soko-

lowsky, and Onodi. *Secretaries*—Drs. Nuvoli (responsible secretary), Egidi, Trifiletti, Karis, Flatau, Bronner, St. Clair Thompson, Rougé, and Roquer y Casadesus.

The *PRESIDENT* delivered a stirring inaugural address, in which he made a sympathetic reference to the late Sir Morell Mackenzie.

Papers were read by PROF. CHIARI on "Pachydermia of the Larynx and on the Nature of Fibroma of the Vocal Bands." In regard to pachydermia he excluded Virchow's verrucose form, which he considered to be only the clinical papilloma. Pachydermia diffusa was, in his opinion, a phase of some other diseased condition of the larynx, and not a particular disease *sui generis*. He distinguished the primary or idiopathic form, the result of simple chronic catarrh, and the secondary or accessory form, which was part of some other disease such as perichondritis, tubercle, or syphilis. Potassium iodid was occasionally beneficial, but in some cases was injurious to the general health, and was often powerless, even in cases of undoubtedly syphilitic origin. The treatment he recommended most strongly, when called for, was electrolysis, which he believed to be the most efficacious in preventing the recurrences which were too apt to take place.

Vibratory massage of the mucous membrane of the upper air-passages was recommended very highly by Drs. Braun, Dionisio, and Garnault, but decried by Dr. Chiari. Good effects were claimed for it in the treatment of ozena.

A paper on "Intubation of the Larynx in the Adult" was read by DR. SCHMIEGELOW, and a good discussion took place, especially with reference to its use in cicatricial contractions in the larynx and upper part of the trachea. Several speakers referred to the excellent results obtained from thyrotomy and excision of the cicatricial tissue, and also from dilatation from below upward through the tracheotomy wound.

SECTION OF OTOTOLOGY.

The following officers were elected: *President*—Dr. Emilio Rossi. *Honorary Presidents*—Drs. Calladon, Gellé, Moos, and Politzer. *Secretaries*—Drs. Ferreri, Dundas Grant, Ludewig, Garnault, and Sartori.

The *President's* Address was followed by the description of a case of otitic thrombosis of the lateral sinus, by Prof. Moos. The mastoid process was trephined, and after death from pyosepticemia, lateral sinus disease was found, in spite of the absence of the characteristic temperature and rigors. Prof. Moos advises bacteriologic examination of the blood as an aid to diagnosis in such obscure cases.

DR. MOURE described a case of latent cerebral abscess due to ear-disease in which sudden death took place. No necropsy was obtained. Several similar cases were related by others.

DR. RHEINHARDT read a paper on "The Treatment of Cholesteatoma by Operation." He recommended in the operation the transplantation of flaps from the back of the ear, and the leaving of an opening in the mastoid region, especially in women, where it could be hidden by the hair. There was freedom from recurrence in those cases in which the opening was left.

PROF. GRADENIGO dealt with the subject of auricular affections in hereditary syphilis, which might be either

suppurative or non-suppurative, and might occur even in advanced life.

DR. GELLÉ reported cases in which anti-syphilitic treatment produced rapid benefit after other means had quite failed.

DR. CALLADON read a paper on "Fixation-abscesses in Otolaryngology," meaning thereby the derivative action of an abscess in the external ear in effecting the cure of middle-ear inflammation. He employed applications of thymol as being an antiseptic irritant.

The pathogenesis of Ménière's disease was discussed by PROF. GRADENIGO, who considered most cases to be of the spurious or reflex type, and due to disease of the tympanum.

DR. AVALADO described a case in which Ménière's symptoms were well marked, and in which recovery took place after the performance of Stacke's operation.

Papers were further read by DR. KIRCHNER on "The Value of Gymnastics of the Ossicles," and on "Necrosis of the Cochlea;" by DR. GELLÉ, on "The Osseous Casing of the Facial Nerve and its Lesions," directing attention to a case in which the extraction of an ordinary aural polypus was followed by facial paralysis. PROF. POLITZER described a new form of disease of the ear, with progressive deafness, in which a kind of inflammatory hyperostosis took place round and in the fenestra ovalis. It occurred chiefly in the later years of life, and sometimes was associated with the arthritic or syphilitic dyscrasæ. PROF. MOOS showed and described some beautiful sections illustrating disease of the inner ear. PROF. GRAZZI read a paper on "The Injurious Effects of Railway Signals of a Noisy Nature on those Employed among Them," and insisted on the necessity for examining the ears as much as the eyes of railway servants. DR. CONRADI, in some studies on the influence of asymmetry of the cranium on Weber's tuning-fork experiment, arrived at the conclusion that the influence was *nil*.

(To be concluded.)

PHILADELPHIA ACADEMY OF SURGERY.

Meeting March 5, 1894.

THE PRESIDENT, DR. WILLIAM HUNT, IN THE CHAIR.

DR. JOHN H. PACKARD presented a verbal report of three cases of left inguinal colotomy:

By some surgical writers, notably the elder Gross, the opinion has been expressed that the making of an artificial anus by opening the colon placed the patient in a condition so distressing that death itself would be preferable. My own experience with these operations warrants me in upholding a very different view. My first case occurred in 1873, and I had the advantage of the presence and assistance of Prof. Gross and of Dr. Lewis; the patient, whose rectum was occluded by a uterine carcinoma, lived in comfort for eight months, dying then from exhaustion due to the advance of the disease. In this instance, and in other cases for many years afterward, I made the opening in the left loin, thinking the access more ready, and preferring to avoid encroaching upon the peritoneum. There is, however, one great objection to the method, that the point of exit for the feces is so placed as to be only with difficulty reached by

the patient, and to require the assistance of others in attending to it.

For the operation in the left groin, I think the best rule as to the incision is to make it, just as on the right side in appendicitis, an inch and a half from the left anterior superior iliac spine, and at right angles with a line between this process and the umbilicus. With scrupulous asepsis the opening of the peritoneum is made with safety; the operation is one of no more difficulty than that in the loin, and the artificial anus is entirely under the patient's control. The directions given in some of the books for the finding of the bowel seem to me to be needlessly complex; if the large intestine does not immediately present itself in the wound, a portion of the small intestine will, and must be pushed aside, when the sigmoid flexure, especially if distended, will be seen, and may be recognized by the longitudinal muscular bands.

My own opinion is that it is a matter of but little moment whether the bowel is opened at once or after the lapse of several days.

I do think it important that the gut should be well drawn down into the wound until the portion above this point is slightly tense, so as to avoid subsequent prolapse through the artificial anus. Even with this precaution it sometimes happens that the inner wall will pouch out and be a cause of some annoyance.

For suturing the edges of the peritoneum to those of the skin it is well to use black silk, so that these stitches may be readily distinguished from those by which the bowel itself is fastened in the wound; these latter should be of white silk, and should penetrate beyond the muscular coat, but not through the mucous membrane.

It is not always easy to judge how large an opening should be made into the bowel. In a child, or when the wall of the gut is very thin, a small orifice will suffice; and I do not think more than three-quarters of an inch is ever necessary.

CASE I.—J. B., a mulatto, aged fifty-five years, but looking much older, was admitted into my ward at the Pennsylvania Hospital, November 26, 1892, on account of epithelial carcinoma of the rectum. His condition was most deplorable; there was a mass of disease stiffening the wall of the bowel and discharging from its ulcerated surface a very offensive pus, which, mixed with fecal matter, flowed away constantly through the wide-open anal orifice. Hence he not only suffered agonizing pain, but the intolerable fetor made him loathsome to himself as well as to all about him.

He had, moreover, a left inguinal hernia, which he ascribed to the kick of a horse in January, 1891. This did not in any way interfere with the operation, which was done four days after his admission. The opening into the bowel was not made until December 4th, or four days later.

Immediately after the operation his temperature fell to 97.6°, but he soon rallied and did well. The artificial anus gave no trouble, but was cleansed once daily. By means of washing out with a solution of potassium permanganate or other detergent, the rectum was rendered inoffensive. A portion of the diseased mass was curetted away about four weeks after the colotomy, but no more radical procedure seemed to be justified.

The patient lived in comfort until April 18th, nearly five months, and then died painlessly from exhaustion.

At the autopsy it was found that the morbid growth extended five inches above the anus, and had involved the posterior wall of the bladder; there were abundant deposits in the pelvic and mesenteric glands.

A somewhat noticeable fact was that the serous covering of the gut was adherent to the parietal peritoneum for a long distance above the point of operation.

CASE II.—Ellen B., aged fifty-two years, was admitted under my care in the Pennsylvania Hospital, October 24, 1893, suffering from extensive carcinomatous disease of the uterus, involving the rectum; she had not had a natural stool for a year. Her general health was not greatly impaired, but she had great distress by reason of the rectal obstruction.

The next day I exposed and secured the sigmoid flexure, and twenty-four hours afterward opened the bowel. Just after the operation her temperature fell to 96.2°, but reaction took place quickly. Regular movements were soon had through the artificial anus, and on the seventeenth day she was discharged at her own request, to return to her home in Sullivan County, Pa.

CASE III.—Mrs. M., aged about fifty, living in one of the cities in the interior of this State, was seen by me in April, 1893, on account of almost total obstruction of the rectum by the pressure of a tumor of the womb, which filled up the entire pelvic cavity. To attack this in its then condition seemed to me, as well as to her physicians, unwarrantable; and as her suffering arose mainly from the rectal obstruction, I proposed opening the bowel in the left groin. To this she agreed, and I performed the operation at her residence. Complete relief was afforded, and after some experiments in the devising of a suitable contrivance for keeping control of the contents of the bowel, this lady was enabled to resume her active life, going into society freely, and attending to all her affairs without hindrance.

Should this tumor, probably a fibroid, develop so as to rise out of the pelvis, the question of hysterectomy might be entertained; and if this were successfully accomplished the closure of the artificial anus might, perhaps be undertaken.

DR. J. M. BARTON: I can speak most favorably of inguinal colotomy. It gives us an opportunity of determining what portion of the bowel is involved and making our opening well above the disease. It also permits us to explore the glands in the interior if removal of the rectum is contemplated. In regard to opening the bowel I have preferred to permit it to remain at least four or five hours before opening; by that time the peritoneal surfaces are adherent. It has been recommended to leave the bowel twenty-four hours and then open with the Paquelin cautery. This seems unnecessary. I usually employ scissors and control any bleeding that may occur with hemostats. I have had no difficulty with prolapse.

DR. JOHN B. DEEVER: It has fallen to my lot to have done several colotomies, but only one or two inguinal. My reason for preferring the lumbar method is chiefly that it is an extra-peritoneal operation. Another reason is that if the disease extends it will take longer to reach the opening in the loin than one in the abdominal wall in front. I am free to confess that I have been largely influenced by the views of Mr. Bryant. The lumbar operation is not by any means difficult. I think that it

is quite as simple, and, when there is distention, simpler than the abdominal operation. In the anterior operation distention increases the difficulty.

The anterior wound can probably be looked after better than one in the loin, but it is more difficult to keep a pad in position in the former case.

DR. T. S. K. MORTON: Not many days ago I did an iliac or inguinal colotomy, and a most curious feature of the case was an apparent transposition of the colon to the right side. On making the incision in the left side the colon presented, but on making traction it was found that the entire transverse colon and omentum were speedily delivered, and I had considerable difficulty in locating the descending colon. I finally traced it to the right inguinal region. The lumbar operation, I think, would not have been feasible in this case.

There is one point which I think has not been sufficiently emphasized, and that is the importance of making a spur. This cannot be done by suturing the side of the bowel to the abdominal opening. If little pieces of feces pass the opening and reach the diseased surface they cause a great deal of pain. I have seen nothing equal to a bar of glass or other material passed through the meso-colon for securing an adequate spur. When the bowel is cut transversely upon this support you have two openings presenting, one above the other, and it is impossible for feces to pass across. As far as the control of the anterior opening is concerned, in the cases that I have seen it has been almost perfect.

With regard to prolapse, Mr. Allingham has proposed dragging into the wound as much colon as possible, and removing the redundant portion. He claims that this will prevent subsequent prolapse. This method has been condemned by others, and it has been found sufficient to make the upper part of the colon taut before fixing it.

The size of the opening, I think, should be the entire diameter of the bowel. This gives some sphincter-like action to the end. It has occurred to me that we might employ here the operation of Gersung for incontinence of feces from the anus—that is, rotating the bowel a full circle before suturing it. It has been shown that when incontinence is present an efficient sphincter can be made in this way, and one that will control liquid feces.

DR. JOHN B. ROBERTS: A limited experience with both operations leads me to strongly favor the inguinal method. I feel, with Dr. Morton, that the important thing is to obtain the spur. I do not see how that can be easily done without using some form of support and bringing the mesentery out of the wound. I think it a most important feature. I prefer when it can be done, to wait a few days for adhesions to take place. In opening the bowel I am inclined to prefer cutting entirely across.

DR. PACKARD: With regard to the making of a spur, it has never been necessary in any of my own cases, and I think it can only exceptionally be of advantage. If the opening made is sufficient the feces will escape easily through it, and the lower part of the bowel has been, in my cases, kept quite free from irritation by them. Of course if a spur is to be made the bowel must be drawn clear out.

As stated in the report of my cases, there was, in the third especially, still some tendency to prolapse in spite

of the drawing down of the bowel, and I should be glad to know of some other way of preventing it.

I am aware that Allingham advises complete section of the bowel, but this seems to me to add to the gravity of the operation without adequate advantage.

A properly adjusted pad ought to keep its place without trouble.

DR. JAMES COLLINS detailed "An Observation of the Effects of Erysipelas on Epithelial Cancer": About eighteen months ago my attention was called by Mr. M. to an ulcer on his right cheek nearly opposite the ear. This ulcer was one and a half inches in its longest diameter, one inch in the shorter, and presented an oval outline with irregular edges. The discharge was slightly purulent and tinged with blood. The granulations were soft and bled on the slightest touch.

Mr. M. stated that twenty years ago there appeared at this point a small elevation, which frequently formed a scab, which every ten or twelve days would fall off and then re-form, and, giving but little trouble, received but little treatment.

Nineteen years ago he was treated for a time with ointments and lotions, also some medicine was administered without special benefit. The ulcer gradually increased in size and depth. Some benefit was derived from a lotion of zinc sulphate and salt, dissolved in water to make a mild astringent solution. The ulceration, however, continued giving inconsiderable pain, but much annoyance by its presence.

About November 12, 1893, he suffered from an attack of erysipelas of the face. This ran no unusual course, spreading rapidly from the tip of the nose over the scalp to the nape of the neck. The efflorescence was followed by desquamation. An external dressing of ichthyol and lanolin was applied and afforded relief and comfort.

As the erysipelas faded the ulcer seemed to assume a more healthy appearance. Granulations of a more nearly normal character developed, and in about two weeks the ulcer was entirely healed. The cicatrix on March 1st was slightly indurated, but smooth and firm, presenting the appearance of normal cicatricial tissue.

This case is reported without special comment, as a single case from the practice of a surgeon is but of little value, isolated and alone.

DR. JOHN B. DEEVER: I now have a patient with osteo-sarcoma to whom I have given the toxin of erysipelas, but it seems to have no effect.

DR. ORVILLE HORWITZ: I have had three cases—two of sarcoma and one of carcinoma—treated by the hypodermatic injection of the toxin of erysipelas. In the case of carcinoma and in one case of sarcoma there was no benefit. In the third case the mass involving the side of the neck has become much softened, and it looks as though some improvement were taking place.

DR. PENROSE: My experience is limited to one case of inoperable carcinoma of the right superior maxillary which had existed some two years. Three or four operations had been done, but the disease had finally gotten beyond bounds. Last spring this woman accidentally acquired erysipelas, and had one of the worst attacks that I have seen, but it had no effect on the neoplasm. The progress of the growth has been the same as before. The beneficial effect of this antitoxin is limited almost

exclusively to the softer forms of sarcoma—to sarcoma of the soft parts.

DR. JOHN B. DEEVER read a paper entitled "Vaginal Hysterectomy": *Symptoms.* The symptoms of carcinoma of the cervix may at first be so slight that the patient will pay no attention to them, but will attribute the sensations experienced to the change of life or menopause, at which time carcinoma in this locality usually makes its appearance. From the insidious character of the invasion, considerable involvement will generally have taken place ere the case comes to the notice of the attending physician or surgeon. A slight hemorrhage is noticed, following exertion or coitus, and occurring in the interval between the menstrual periods. This usually does not alarm the patient until it becomes a frequent occurrence. It has been compared to the hemoptysis of early pulmonary tuberculosis, but is unlike this from the fact that there is no active, destructive change going on as yet. A leukorrheal discharge is present, although without the characteristic odor. In the first stage the general or constitutional manifestations of carcinoma do not present themselves. Pain, however, is one of the earlier symptoms. There may be disturbance of either the digestive or the nervous system, or of both.

Following this preliminary stage there is usually a period of latency, in which the disease seems to "rest upon its oars," prior to the second stage, when all the symptoms are present in a marked degree. The hemorrhages are more frequent, and at times are profuse. There is also present a sero-purulent, irritating discharge, with a penetrating, foul odor, and by contact with the internal and external genitalia giving rise to irritation and pruritus, which often cause as much distress as the primary disease. The pain is severe and radiating in character, and is felt most in the lumbar region. The uterus may be fixed or movable; as the disease progresses the uterus becomes fixed by extension of the disease to the surrounding pelvic structures. Examination with the speculum is often unsatisfactory, unless ulceration or granulation-tissue be present; the finger more readily detects the changed character of the tissue, recognizing the neoplasm from its consistency.

The general condition of the patient during the second stage undergoes a marked change. The digestion is very much impaired; anorexia, constipation, etc., are present, and give rise to systemic malnutrition. As a result of this general disturbance, what is known as the "cachectic stage" makes its appearance. The skin is dry and rough, and its color is changed to a muddy, yellowish-brown tint.

Diagnosis. The conditions from which carcinomatous disease of the cervix must be differentiated are the following: Lacerated cervix, with cervical catarrh; erosion of the cervix; specific ulceration; mucous patches; papillary growths; vaginitis; myoma; and sarcoma.

The diagnosis of cervical carcinoma is in the main easy, as the cases are usually seen after positive ulcerative and other gross changes have taken place. When there is simply thickening of the mucous lining of the cervix, with infiltration of the walls, and particularly when the cervix has been torn, it becomes somewhat difficult to differentiate the condition from a long-standing case of cervical catarrh. When, in addition to these features, the cervix presents a nodular appearance from

occlusion of the cervical glands, the difficulty is increased. This last condition, however, should not be mistaken for carcinoma, as the nodules are characteristic of malignant infiltration.

If ulceration is present, and the ulcers present a punched-out, ragged appearance, bleeding freely on the slightest touch, suspicion should be aroused. On the other hand, ulceration consequent upon erosion of the cervical mucous membrane is regular in outline and the surface of the ulcer smooth.

Specific ulceration of the cervix, chancral and chancroidal, is rarely seen, and bears little or no resemblance to carcinoma, and in connection with the history of the case, age of the patient, etc., should not cloud the diagnosis.

Mucous patches and papillary growths are more likely to be confounded with the disease than the two preceding conditions; these are, however, distinguishable in that they are more numerous and more widely distributed.

The discharge which accompanies vaginitis in no way resembles that resulting from carcinoma.

Myoma of the cervix might be confounded with a single carcinomatous nodule, but differs from the latter in the absence of infiltration, inflammation, and adhesion of the overlying mucous membrane.

In incipient carcinoma of the mucous lining of the uterus before the body has become involved, the only symptoms are the presence of a sero-sanious discharge, not necessarily accompanied by odor, and the general appearance of anemia, with debility and digestive disturbances. Pain may or may not be a feature of the case. These indefinite symptoms, together with the failure to respond to well-directed treatment, and the absence of disease of the uterine adnexa, should warrant dilatation and curettement for purposes of diagnosis.

In carcinoma of the body of the uterus the presence of a sero-sanious discharge with the characteristic odor, associated with frequent hemorrhage and enlargement of the fundus, would warrant curetting and microscopic examination of the particles of tissue removed. This may be done without anesthesia.

Sarcoma of the uterus is capable of giving rise to symptoms similar in many respects to those of carcinoma. While it is not always possible to differentiate between these affections, each has symptoms peculiar to itself.

The symptoms in favor of sarcoma are the presence of a rapidly growing tumor of the uterus appearing rather earlier in life than carcinoma; hemorrhage, which is more or less constant; and severe pain.

The diagnosis of sarcoma can often be established by a digital examination, when the cervix will be found less patulous than in carcinoma, the tumor presenting the form of a polypoid growth. It may be necessary to dilate the cervix to explore the interior of the uterus, when, if a mass be found, a portion of it may be removed and examined.

Prognosis. As to the probable outcome of vaginal hysterectomy for carcinoma, it is too early in the history of the operation to draw definite conclusions, but the results thus far have proved that especially early and even later operation prolongs life. There is no doubt but that removal of the uterus for carcinoma, if done

early, offers a longer immunity from return than does operation for the same disease in other parts of the body.

Complications. Fatal attacks of uremia may follow, though it is rare to have eclamptic convulsions.

By extension of the disease the bladder and rectum become involved, and as a result cystitis or vesico-vaginal or recto-vaginal fistulae may arise to aggravate the already deplorable condition of the patient. Peritonitis from extrusion would cause a speedy termination of the case, as would an embolus.

Pregnancy is a dangerous complication, as septicemia or fatal hemorrhage is likely to ensue if the case be permitted to go to full term.

Anatomic relations. The relations of the ureters are of so much importance in this operation that I have thought it worth while to describe their course. They extend from the termination of the pelvis of the kidney to the bladder, passing through the laminae of the sub-peritoneal connective tissue. Their average length is about twelve inches. At their commencement they lie about three inches apart, but on nearing the base of the bladder they run forward and inward and pierce its wall, and at their termination are separated by a distance of about an inch and a quarter. We may describe them as consisting of three portions—viz., abdominal, pelvic, and vesical. The abdominal portion is in relation posteriorly with the psoas muscle and its fascia, the genito-crural nerve, and the common iliac artery. Anteriorly they are covered by the peritoneum, and the right ureter lies partly under the caput coli and ascending colon, and the left under the descending colon and sigmoid flexure. About the middle of their course they are joined by the ovarian vessels, which cross them to descend into the pelvis along their outer border. At the brim of the pelvis the right ureter lies just behind the peritoneum, where it can be seen, with the ovarian vessels. The relations of the ureter to the sigmoid flexure depend entirely upon the length of the meso-sigmoid. Thus in one case the ureter may lie behind the sigmoid vessels, and in another directly behind the intestines. After crossing the psoas muscle it passes obliquely over the common iliac artery above its bifurcation, dropping into the pelvis at this point.

The pelvic portion runs in front of the sacro-iliac synchondrosis, then upon the obturator internus muscle and its fascia, finally leaving the pelvic wall to join the bladder. It lies at first usually to the inner side of the internal iliac artery, subsequently to the outside, and is again crossed by the ovarian veins and artery, which leave it at an acute angle. It then descends in the lower cellular tissue to the floor of the pelvis in a forward direction, passing directly under the uterine artery, and through the uterine plexus of veins and beneath the base of the broad ligament. Finally it crosses the upper third of the vagina to reach the vesico-vaginal interspace, and pierces the bladder opposite the middle of the vagina.

The vesical portion, about half an inch in length, runs obliquely downward and inward through the coats of the bladder to open on the mucous surface at a distance of from an inch to an inch and a quarter from its fellow, and the same distance from the internal urinary meatus.

The uterine artery leaves the lateral pelvic wall at a point just above the ischial spine, reaches the vaginal

wall at the level of the os externum, and then runs upward along the side of the uterus to reach the fundus.

Preliminary treatment. Much depends upon the preparation of the patient for operation. The most careful antiseptics of the vulva and vagina should be carried out. It is the practice of some surgeons to have the hair covering the soft parts removed; I do not believe this necessary if this region be thoroughly scrubbed twice a day with some good detergent soap for two or three days prior to the operation. The vagina should be cleansed with soft soap, and then both the external genitals and the vagina irrigated with a 1:60 carbolic acid solution containing an amount of mercuric chlorid to make it equivalent to 1:4000. The bowels should likewise be carefully regulated, and a mild laxative administered for a few days before operation, to thoroughly clean out the lower end of the alimentary canal. If there be present granulations covering the cervix or occupying the uterine canal, or should the cervix be eroded and there be a fetid discharge, it would be wise at first to curet away the granulation-tissue exciting the discharge, and subject the vagina to mercurial irrigations twice or thrice daily, the frequency depending on the character of the discharge.

Methods of operation. In the operation of vaginal hysterectomy one of three methods is practised—the clamp, the ligature, or enucleation (Langenbeck's). There is no doubt but that the method by enucleation is the ideal one, and should be adopted when the case is suitable for it.

The enucleation-method consists first in liberating the cervix by carrying two elliptic incisions through the vaginal wall in front of and behind the cervix, or by a circular incision carried around the cervix, the dissection being made close to the cervix. This should be the rule whatever method be employed. In the removal of tumors of the neck in the immediate neighborhood of large vessels, or, in fact, of any tumor occupying important vascular relations, the surgeon follows the practice of dissecting close to the tumor. The second step in the enucleation-method is in making a subperitoneal dissection of the uterus. I think this should be the operation of choice, in the early cases at least.

Between the clamp-method and the ligature-method there is in my mind no doubt of the superiority of the latter. I grant that there are a few cases in which the clamp-method is probably the better operation, but these constitute the exception. The ligature-method of vaginal hysterectomy is as much superior to the clamp-method as is the dropping of the stump in the supra-vaginal method after having tied off the uterine appendages and ligated the uterine arteries over that of the *serre-naud*. The ligature is surgical, while the clamp compared to it is unsurgical.

In the selection of any operation, that which will leave the patient the most comfortable, not, of course, exposing her to a single additional risk, should in my judgment be the one of choice. I am frequently confronted with the argument: "Why, the clamp-method can be done in fifteen minutes and less." In answer to which my reply is: The ligature-method can be done in from thirty to forty minutes. The question of a few moments in doing the operation is of no import, as, if the case is suitable for hysterectomy, there will be no shock. The

loss of blood in the ligature-method, if done properly, is no greater than in the clamp-method, and the security against secondary bleeding is much greater. The ligature-method is one that can be made a strictly aseptic one, and maintained so throughout, while in the case of the clamp there is always some suppuration following, thus exposing the peritoneum to infection from without.

The question may arise: Why not close the wound in the vault of the vagina? The wound closes itself. I have observed, and have demonstrated after the removal of the uterus, the almost perfect apposition of the cut surfaces; and have, therefore, never been able to see the necessity of introducing sutures. If bleeding follows reaction from the anesthetic, and the wound in the vagina has been closed by sutures, the closure may be the cause of a subsequent abscess, while in allowing the edges of the wound to appose naturally, and introducing a little packing of iodoform-gauze into the vagina, not carrying it into the pelvic cavity, the blood finds its way into the vagina and is taken up by the gauze. By the time reactionary or consecutive bleeding, if you see fit to call it such, would occur, the wound in the vagina would not yet have been sealed off; therefore it finds its way out of the pelvis.

In either the ligature-method or the clamp-method, when the cervix is entirely destroyed, thus making it impossible to grasp it with a vulsella or pressure-forceps to pull the uterus down, my practice is to introduce a tenaculum into the uterus, by which I am able to make slight traction, and thus steady the organ; this allows me to free the vaginal walls and expose the supra-vaginal portion of the cervix, which I grasp with the vulsella, and thus command the uterus through the remaining steps of the operation.

Operation. The bowels and bladder having been emptied, the patient is anesthetized and placed in the lithotomy-position, with her limbs held by assistants. A Sims' speculum is introduced and the cervix uteri exposed. The cervix is then grasped either with a vulsella or a pair of pressure-forceps, the latter being less likely to slip or tear out. Traction is made upon the uterus, drawing it downward and forward to expose its under surface. An incision is carried across the exposed surface to the situation of the internal os, or as far away from the eroded tissue as possible, and with the fingers the posterior wall of the vagina and the areolar tissue are freed, from the uterus down to the peritoneum. The forceps holding the uterus is then carried downward, and the incision continued to make it encircle the organ. The structures in advance of the uterus are dissected away in the manner described, great care being observed to keep close to the body to prevent injury to the bladder; having reached the vesico-uterine folds of the peritoneum, the vagina is thoroughly irrigated. The recto-uterine and vesico-uterine folds of the peritoneum are now broken through, and, if the operator so desires, a small piece of gauze or sponge may be introduced to prevent prolapse of the intestine; this I do not believe, however, to be essential. The female blade of the clamp is then introduced along the palmar surface of the finger, which acts as a director. The blade of the clamp is made to hug the under surface of the broad ligament, and the end of the blade is made to pass beyond its upper limit. The handle is depressed to make the end

appear above the upper surface of the ligament, the other blade introduced, and the clamp locked. The opposite side having been treated in the same manner, the attachments are severed and the uterus removed. Should difficulty be experienced in applying the second clamp, the attachment of the side already clamped may be severed, and the body of the uterus loosened and delivered, when the clamp can be easily applied.

A piece of sponge or gauze is introduced, and the vagina is irrigated; gauze is loosely packed around the clamps to prevent ulceration of the soft parts from pressure, and a light packing is placed in the vagina to act as a capillary drain.

The clamps may be removed at the end of the second or third day. In removal of the uterus by the ligature-method the early steps are the same as in the clamp-operation. Having freed the uterus from all its surrounding tissues except the broad ligaments and the peritoneum covering the fundus, the vagina is thoroughly irrigated. The broad ligaments are now to be ligated. An aneurism-needle, curved on the flat and set at right angles to the handle, is threaded with a silk ligature and passed through the base of the right broad ligament a short distance from the cervix; this secures the uterine artery. Successive ligatures are then applied until the entire ligament is tied off. As each ligature is tied the included portion is cut free from the uterus. Having ligated and secured the right ligament, the left is treated in the same manner.

If there be an elongated body, as is often found in uterine carcinoma, great difficulty may be experienced in ligating the entire ligament upon one side without tying off and removing a portion of the ligament of the opposite side. By adopting this course the organ can be pulled down and the remaining ligatures easily applied. As the ligatures are being tied down the traction of the uterus should be relaxed. The uterus having been freed from its ligamentous attachments, the peritoneum is broken through and the organ removed.

After the uterus has been removed, it is the custom of some surgeons to close the opening in the vagina. I do not practise this. The cut surfaces approximate themselves, and further favor drainage if we simply pack the vagina and do not stitch.

REPORT OF CASES.

CASE I.—Mrs. C., aged thirty-five years, was admitted to the German Hospital with an extensive carcinoma of the cervix, which had recurred after a previous curetting and now demanded the removal of the whole organ. The patient was carefully prepared for operation, receiving several antiseptic douches daily for a few days, and also boric-acid baths. The anterior and posterior walls of the vagina were carefully dissected up, and the uterus freed and its broad ligaments tied off in sections. The ovaries were removed with the uterus. A light packing of iodoform-gauze was introduced into the vagina.

The patient made an uninterrupted recovery, and was discharged in three weeks.

CASE II.—A. B., aged forty years, and unmarried, was admitted to the German Hospital with the following history: For some time past she had been suffering from profuse uterine hemorrhage. The menstrual flow was excessive and painful. A diagnosis of carcinoma of the

uterus was made, and total removal of the organ advised.

Operation. The mucous membrane of the anterior vaginal wall was dissected up until the fundus of the uterus was reached. The posterior wall was treated the same way. The broad ligaments were tied off in sections—four on either side of the uterus, which was now removed with the ovaries and tubes. The ligatures were cut short. A light packing of iodoform-gauze was introduced into the vagina, and a pad placed over the vulva. The packing was changed on the fourth day; on the seventh day a slight odorous discharge was noticed, which disappeared on the twentieth day after the operation. There were no signs of peritonitis.

The patient was discharged on the twenty-fourth day. Microscopic examination of the specimen proved the correctness of the diagnosis—carcinoma at an early stage.

CASE III.—Mrs. K. G., aged thirty-five years, was admitted to the German Hospital with a history of curetting at another institution for carcinoma of the cervix. At the time of admission a granular mass was found involving the entire cervix. She was again curetted. Six days later vaginal hysterectomy was performed.

Operation. The cervix was drawn down by means of a tenaculum, and a silk thread introduced through both lips. The anterior vaginal mucous membrane was carefully dissected up from the exterior surface of the uterus. The posterior surface was similarly treated. The smallness of the vaginal cavity complicated the enucleation considerably. After the uterus had been freed of the vaginal mucous membrane, clamps were applied to the broad ligaments. The organ was removed by cutting between the uterus and the clamps. The part was irrigated with a boric-acid solution, and the vagina packed with iodoform-gauze. An antiseptic pad was applied to the vagina. The clamps were removed on the fourth day. Recovery was uninterrupted.

CASE IV.—Mrs. K., aged thirty-four years, was admitted to the German Hospital with a granulating mass of the cervix. An attempt was made to curet the mass away, but it was found to be too extensive.

Operation. The cervix was firmly held with a vulsell-forceps. The anterior vaginal mucous membrane was dissected away from the uterus. The posterior surface was treated similarly. The broad ligaments were tied off in sections—three ligatures upon either side of the uterus, which was now removed; the vagina was irrigated and packed with iodoform-gauze. The dressing was removed on the eighth day, the parts irrigated, and another dressing applied. The patient made a successful recovery, being discharged upon the fourteenth day.

DR. C. B. PENROSE: In the diagnosis of doubtful cases I have found dilatation and curetting unsatisfactory in most cases. We may be obliged to rely on these in carcinoma of the fundus, but in suspected carcinoma of the cervix I think that it is better to cut out a wedge-shaped piece. I have done this in fifteen or twenty instances, and in many of them have recognized carcinoma in its early stages.

I prefer removal through an abdominal incision in all cases, if necessary making a preliminary incision in the anterior and posterior vaginal fornices in order to be

sure that all infiltrated tissue in the vagina is removed. By this method you can more readily deal with any complications that may arise.

DR. DEEVER: I quite agree that the removal of a portion of the cervix for diagnostic purposes is more reliable than curettement; but this is not applicable in all cases.

I should like to hear from Dr. Penrose what is the status of removal of the tubes and ovaries in these cases. I always attempt to remove them because I see no advantage in leaving them. I should like to know if this lessens the liability to recurrence. The ovaries, however, do not hold the same relation to the uterus that the lymphatic glands do to other structures.

DR. PENROSE: I think that the chief reason that it is desirable to remove the tubes is that in from 25 to 30 per cent. there is extensive disease of the tubes, not necessarily malignant, however. The ovaries, I think, in young women might be left in order to preserve the ovarian influence.

(To be concluded.)

NEWS ITEMS.

Pennsylvania State Medical Society.—The following scientific program has been arranged for the meeting to be held in Philadelphia, May 15, 16, 17, and 18:

Annual Addresses.—Medicine, W. S. Foster, Pittsburg; Surgery, G. D. Nutt, Williamsport; Obstetrics, E. E. Montgomery, Philadelphia; Mental Disorders, T. M. T. McKennan, Pittsburg; Hygiene, J. H. Wilson, Beaver; Ophthalmology, George E. de Schweinitz, Philadelphia.

Medical Papers.—Charles W. Dulles, Hydrophobia; H. F. Slifer, Dietetics; John M. Batten, Unique Cases in Practice; W. C. Hollopeter, Therapeutics of Whooping-cough; William P. Munn (Denver, Col.), Colorado Climate for Consumptives; R. G. Curtin, Subcutaneous Emphysema; John Aulde, Diarrheal Diseases; Wharton Sinkler, Acroparesthesia; Adolph Koenig, Typhoid Fever; W. E. Hughes, Tapping of Abdominal Effusions as a Therapeutic Measure.

Surgical.—E. Laplace, Radical Cure for Hernia; F. Le Moyné, Modification of Pirogoff's Amputation; X. O. Werder, Surgery of the Gall-bladder; T. S. K. Morton, Section of Tendo Achillis in Fractures and Dislocations; John B. Deaver, Appendicitis; G. G. Davis, Amputation near the Ankle; O. Horwitz, Stricture of the Urethra; Charles W. Dulles, Treatment of Fractures at the Lower End of the Humerus; J. M. Barton, Acute Intestinal Obstruction; Edward Martin, Ocular Exploration of the Bladder and Urethra; John B. Roberts, Thyroidectomy.

Obstetric and Gynecologic.—J. C. McAllister, Puerperal Eclampsia; Charles P. Noble, Uterine Fibroids; J. M. Baldy, Acute Endometritis; Anna M. Fullerton, Studies in Obstetrics and Gynecology; Horace Fox, Symphysiotomy and Other Procedures; B. F. Baer, Cholecystenterostomy.

Eye and Ear.—S. L. Ziegler, Corneal Ulcers; S. MacCuen Smith, Diseases of the Ear; H. F. Hansell, Surgical Treatment of Internal Strabismus; Charles H. Thomas, Eye-strain; Charles H. Burnett, Tympanic Vertigo; Louis J. Lautenbach, Massage-methods in the

Relief of Tinnitus; L. Webster Fox, Capsulotomy after Removal of Cataract.

Nose and Throat.—W. H. Daly, Intra-nasal Surgery; William R. Hoch, Naso-pharyngeal Catarrh.

Skin.—J. V. Shoemaker, Clinical Observations; M. B. Hartzell, Epithelioma of the Skin.

Tuberculosis.—Arrangements have been made for a discussion on Medical and Surgical Tuberculosis, and papers will be read on Medical Tuberculosis as follows: S. S. Cohen, Curability and Treatment; J. M. Taylor, Psychic Phases; A. M. Cooper, Contagiousness; L. F. Flick, Prophylaxis; Hugh Hamilton, Medical Tuberculosis; T. J. Mays, Strychnin-treatment of Pulmonary Consumption; D. Longaker, Case of Tuberculous Meningitis.

The following members of the Society have announced their wish to take part in the discussion on Medical Tuberculosis: J. H. Musser, W. B. Ulrich, J. C. Wilson, J. S. Cohen, and W. E. Hughes.

The following papers on Surgical Tuberculosis will be read: C. B. Penrose, Tuberculosis of the Fallopian Tubes; H. A. Wilson, Treatment of Tuberculous Caries of the Spine; E. B. Haworth, Case of Tuberculosis of the Knee-joint.

The following members will take part in the discussion on Surgical Tuberculosis: J. B. Roberts, DeF. Willard, G. G. Davis, J. K. Young, J. M. Barton, and B. F. Baer.

Tuberculous Manifestations of the Skin will be discussed by H. W. Stelwagon.

Besides these, the following papers on general subjects are announced: Hildegard H. Longsdorff, Christian Science and the Medical Profession; S. S. Cohen, Should the Journal of the American Medical Association be Used to Promote Quackery? E. Jackson, Reasons for the Revision of the Code of Ethics; O. H. Allis, Cramming in Medical Schools.

The committee has obtained the consent of Dr. Benjamin Sharp, of the Academy of Natural Sciences, to exhibit to the Society his beautiful series of lantern pictures of the leper settlement at Molokai, Sandwich Islands, and of lepers in various stages of the disease.

Resident Physicians at the Methodist Episcopal Hospital of Philadelphia.—An examination for two resident physicians at the Methodist Episcopal Hospital of Philadelphia will be held on Thursday, May 3, 1894, at 7.30 P.M., at the Hospital, Broad and Wolf Streets.

One of the officers thus selected will go on duty August 1, 1894, and serve twelve months. The other will go on duty September 1, 1894, and serve for thirteen months.

In accordance with the charter of the Hospital, applicants must have the degree of Bachelor of Arts, in addition to that of Doctor of Medicine. Further information may be obtained from John B. Roberts, M.D., Chairman of the Committee on Examinations, 1627 Walnut Street, Philadelphia.

The Wisconsin State Medical Society will hold its forty-eighth annual meeting at Milwaukee, May 2, 3, and 4, 1894.

Correction.—In the 26th line from the top of the second column of page 389 of THE NEWS of April 7, 1894, the figures "100,000" should read "1000."